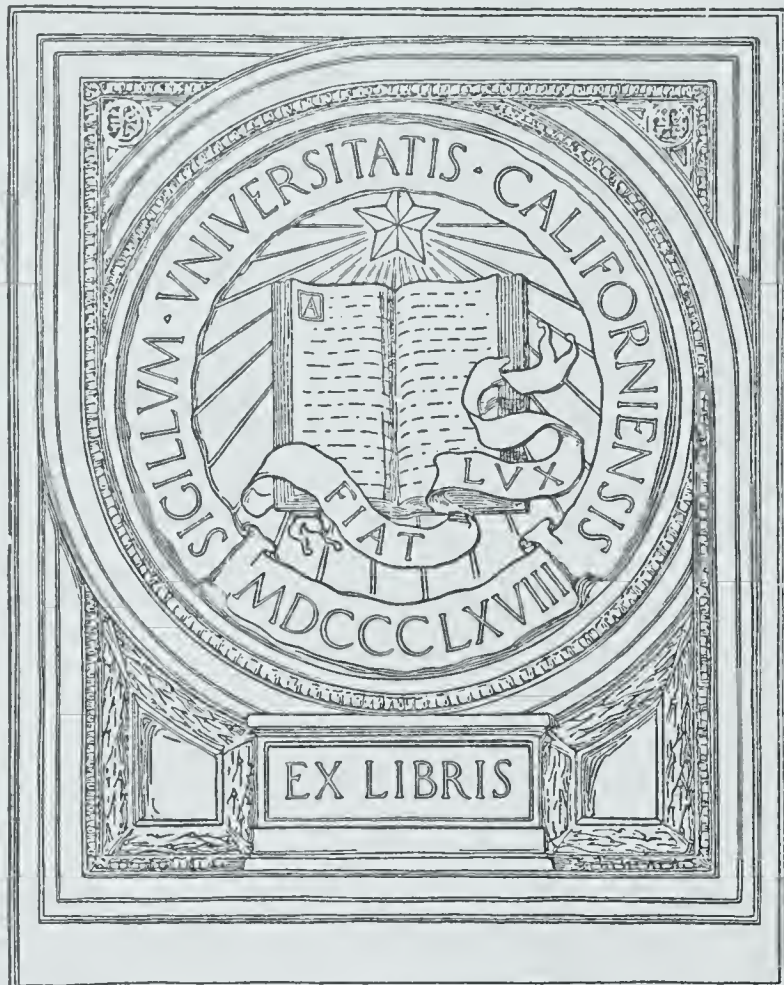
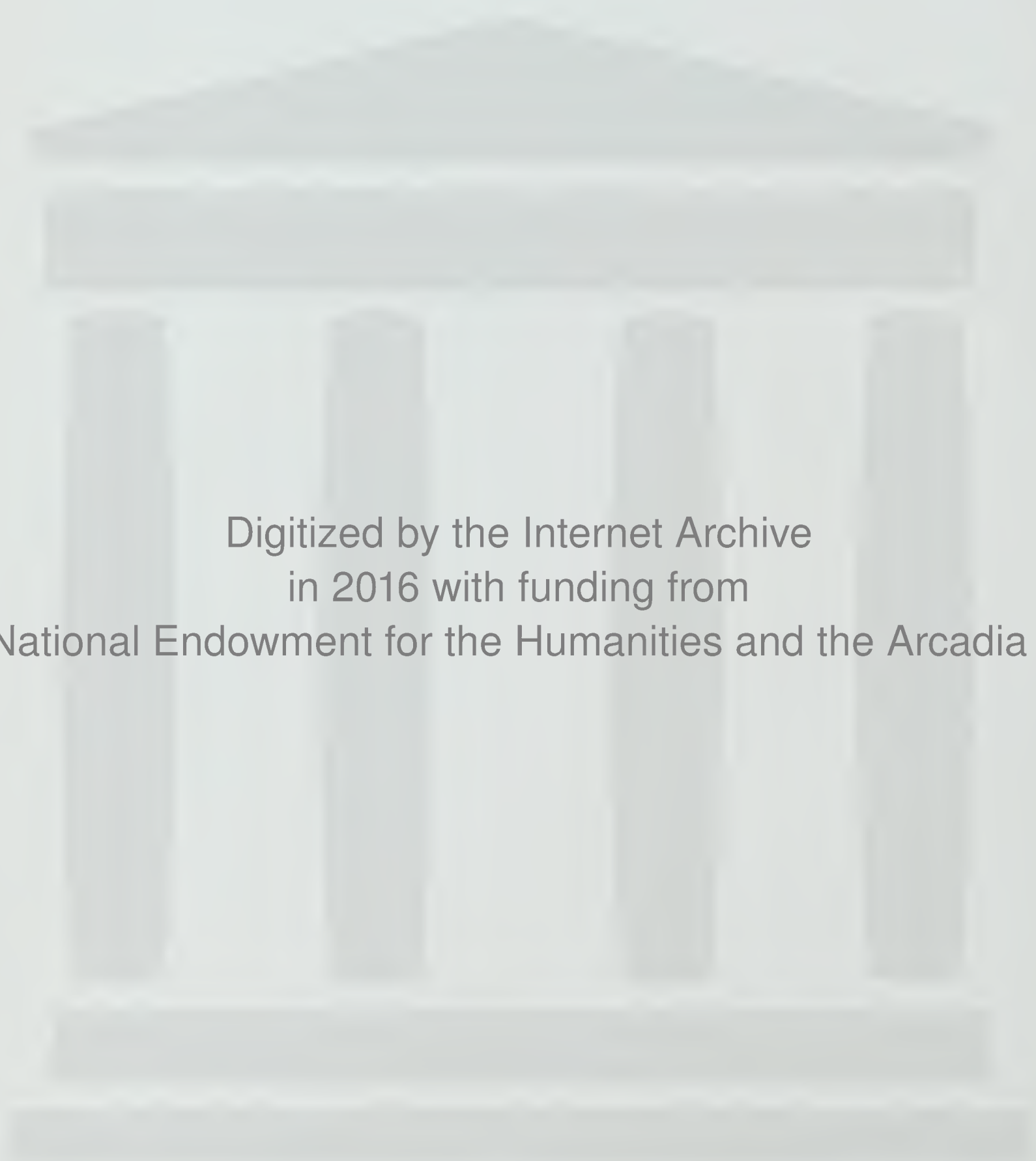


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PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

SOME OF THE DIFFICULTIES OF MEDICAL LEADERSHIP

H. H. SHOULDERS, M.D.

Nashville, Tenn.

Secretary, Tennessee State Medical Association;
Speaker, House of Delegates, American
Medical Association

In my opinion the high plane which medicine has attained in America is attributable, in large measure, to the medical leadership, past and present.

Excellent leadership, it seems to me, has characterized medical organization in the United States for a long time. Of course I do not mean to say that improvement cannot be accomplished. As a matter of fact medical leadership must improve in the same sense that medicine itself must improve and go forward. Therefore I shall discuss briefly "Some of the Difficulties of Medical Leadership."

Medicine, as a whole, has progressed in many directions. There has been steady progress in scientific discovery. There has been steady progress in the development of individual skills—in the art of adapting the science of medicine to the needs of the individual sick person.

There has been progress in the art of adapting the science of medicine, in collective fashion, to the collective needs of communities. This progress has broadened and multiplied, to an immeasurable degree, the contacts and possibilities of the art and science of medicine in human affairs, both as regards the well-being of individuals and of communities. This progress has served, also, to multiply the difficulties and complicate the responsibilities of medical leadership.

I am sure that all who occupy official positions in organized medicine are keenly conscious of this very fact. For these reasons, leaders in medicine, at the present time, have responsibilities and difficulties undreamed of by leaders of former days.

It has not been so long ago that organized medicine was concerned with very few problems which appear relatively simple as we look back on them.

First to be mentioned is the concern of medical leadership for improvement of medical care by improving the qualification of doctors. Medicine took the position that it is an appropriate function of government to concern itself with the qualification of those who would practice medicine. It was in response to the demand of medical leadership that a mechanism was set up in the form of state boards of medical examiners to create standards and to pass upon the qualification of those who would enter upon practice. As a result of these efforts, the quality of medical care was improved and, needless to say, the public was the beneficiary. This action, of course, in no way placed the government in the position of giving individual care to the individual citizen. It did no violence to our democratic ideas.

As scientific medicine progressed it became apparent that situations exist in the form of health hazards which neither individual doctors nor individual citizens can cope with—that the application of some of our acquired knowledge to the needs of humanity required the establishment of an executive department of the state government, clothed with the police power of the state, to make and enforce regulations to deal with these public health hazards. The mechanism established for this purpose was a state department of health in each of the various states and in the federal government.

It is obvious that an individual citizen cannot quarantine his neighbor. It is obvious that an individual cannot make a regulation and enforce it with reference to the purity of a public water supply, the purity of the milk supply, etc. It is obvious that an individual cannot correct many of the environmental conditions which directly or indirectly contribute to the production and spread of disease. Nor can an individual citizen take effective action to prevent the importation and interstate spread of disease. Departments of the state and national governments, clothed with the proper powers, are in position to deal with all these conditions effectively and with great benefit to the public.

On such a basis and for such a purpose, public health departments, both state and national, were created in response to demand on the part of an informed and socially minded medical

leadership. This action in no way did violence to our democratic ideas.

Selfishness on the part of medical leadership, of course, would have suggested that such steps not be taken, on the ground that more disease would mean more work and more pay for doctors.

Public health departments, then, were created for the purpose of dealing with public health problems as distinguished from individual health problems.

A public health problem, of course, is one which requires the use of an executive force to accomplish its correction.

An individual health problem is one which does not require the use of such an executive force to accomplish its correction.

Poverty has been a problem always. The Good Book says, "the poor you will have with you always."

The medical care of poor people has been a problem since medicine began. Medical leadership a long time ago wrote a plank in its platform of medicine touching this question. It was embodied as a fundamental principle in the code of ethical principles. That plank was liberal. It must have been written by a liberal medical leadership because it requires great liberality on the part of doctors in giving medical care to indigent people.

It is to the credit of doctors that we have lived up to that platform of liberality. It seems to me that a radical change in the meaning of the word liberal has taken place in recent times. The liberality of medical leadership requires that medical men sacrifice themselves and subordinate their personal interests to the interests of the public.

The modern political liberal, apparently, holds to the view that he is liberal if he advocates that everybody else be liberal enough to make the sacrifice of turning over to a political agency their earnings, and in addition give to that political agency the power to do as it may choose with both the doctor and the poor.

Liberal-minded doctors in cooperation with liberal-minded citizens, throughout the country, have been dealing with this problem of indigency for many generations and, may I say, with a considerable measure of success. Every charity hospital that dots this land, to which doctors give their services, is an expression of just that liberality of theory and practice on the part of medical leadership.

It is worth while to call to mind, and to remember, that most of the accomplishments in the field of public health, of which we boast the loudest, were accomplished in that period when our public health officials confined their activities to the field of public health. Yellow fever disappeared. Typhus fever disappeared almost entirely, but unfortunately under modern conditions it seems to be reappearing rather rapidly. Smallpox disappeared as a threat to life, and so on. In addition to all this, mortality rates from all causes diminished gradually over the years until our gross mortality rates were comparable to, or better than, those of most of the civilized countries of the world. Thus is reflected the efficiency, the benefits, and the progress in all phases of medical care and public health.

No problem connected with scientific medicine, public health, or the medical care of the indigent, has failed to receive the attention of medical leaders in liberal fashion, and with marked success, over a period of more than half a century.

The new problems with which medical leadership is confronted, it seems to me, deal with the matter of technique all along the line. At least some of these problems have had origin in two sources. The economist and the sociologist arrived on the American scene and in the medical field. In many instances both had the prestige attached to a Ph.D. degree. They were armed, too, with statistical data and fanciful theories. They were implemented by propagandists. They have made the position of medical leadership rather difficult. By their activities they have diminished, and, in some instances, almost destroyed, the faith of the public in the medical leadership which accomplished so much for the public welfare before the arrival of the expert economist and expert sociologist. They very cleverly took advantage of the fact that we all enjoy faction more than we do facts. Fascinating theories, couched in cleverly formed phrases, uttered by a well cultivated voice, make a stronger public appeal, in many instances, than the calm logical voice of experience. By agitation there has been created a situation which approaches a stampede. Some of our fine health departments, with fine records of service back of them, have been influenced in some degree to make of themselves the

dispensers of charity rather than the administrators of executive functions.

These health departments, in many instances, found themselves in such a position that they were almost compelled to perform these functions which they were never created to perform. They objected, but were pressed into taking such steps, at times, in response to a public demand, created by the propaganda of the sociologists and economists. Thus problems of medical leadership have been multiplied and complicated.

Of course, one of the theories which the economists advanced was to the effect, that if a proper distribution of the wealth of our people were accomplished, all people would be in position to pay their bills in their own way. This idea, of course made a strong appeal, but, when experience teaches that the idea, while fascinating, is not practical, the economist and sociologist start in another direction. They advance the theory that, if we will all turn over a sufficient amount of money and power to them or to some political agency, they would create, they will accomplish the distribution of services instead of wealth. They will take command of all those who render services, and those who need services, and as a result all will be well.

It is obvious that the problems of medical leadership are most complicated at the present time, not so much on account of ourselves or our patients, but because of this continuous agitation.

It is not so difficult for us to determine what a sound policy is, but it is sometimes difficult for us to make a sound policy which will make a public appeal, equal to that of the fanciful theorist. Medical leaders, therefore, are in a very difficult position to maintain the position medical leadership should occupy.

Notwithstanding all this, our medical leadership must never forget, and up to now, they have not forgotten, that we live in a democracy. It must not be forgotten that there is such a thing as Americanism, and that under the influence of that idea, as expressed in the Declaration of Independence, the American people have made unparalleled progress.

It must never be forgotten that freedom was the major concern of the leaders, who brought about the adoption of this idea in government. We must not forget that those leaders were more con-

cerned about the question of freedom than they were about their longevity. It must be remembered, also, that millions sacrificed, not only their longevity, but their life in order to accomplish the opportunities of free men.

Medical leadership at the present moment, then, must be mindful of the past. We must be mindful of the attributes which have made our country great in all respects—the attributes which have given the people of the United States the fullest measure of welfare in its broadest sense that has been enjoyed by any people anywhere on earth.

Medical leadership must remember the past. It must survey the present and visualize the future.

Medical leadership must see humanity as humanity is—its virtues and its faults, its generosity and its greed, its hopes and its fears, its loves and its hates, its capabilities and the lack of them. It must look through this maze of conflicting attributes and see the way we should go. When this is done, it must follow through with a fidelity, a courage, and a self-sacrifice akin to that displayed by those who established Americanism at its beginning.

FURTHER OBSERVATIONS ON UNDULANT FEVER IN THE RESPIRATORY TRACT

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INTRODUCTION

There have been such numerous reports of chronic undulant fever in the medical literature that we no longer can deny its prevalence although difficulty in diagnosis leads many to doubt. The numerous reports have shown that undulant fever has a tendency to localize by systems. The manifestations are very frequent in the gastro-intestinal, respiratory and genito-urinary systems and are not infrequent in the circulatory and nervous systems. Its manifestations in the various systems have not been completely explored and particularly in the respiratory tract. Bogart, Lafferty and Phillips, and the author, have recently called attention to the pulmonary changes in undulant fever as manifested by X-ray. The author also called attention to symptomatology and physical

findings of undulant fever involving the whole respiratory tract.

This paper is devoted to further observations of the respiratory manifestations and covers ninety-two cases, including forty-seven cases previously reported. Twenty-five per cent of these ninety-two cases had marked chest symptoms, but practically all had one or more symptoms referable to the respiratory tract. Two cases of bronchiectasis associated with undulant fever are reported and one of bronchial pneumonia. Attention is called to the similarity in the pulmonary changes associated with undulant fever and those found associated with chronic sinusitis and chronic bronchitis.

SYMPTOMS, PHYSICAL AND X-RAY FINDINGS

The symptomatology is that of undulant fever elsewhere plus the respiratory symptoms. The order of occurrence of symptoms in frequency referable to the respiratory tract is pains in the chest, cough, weakness of voice, expectoration, hoarseness, post pharyngeal discharge, sneezing, burning in chest, nasal discharge and hemoptysis. The general symptoms of weakness, low grade fever, night sweats and anorexia, in addition to others, may occur. There are a few symptoms that deserve particular attention: pain in the chest, hemoptysis, cough with or without expectoration, sneezing and hoarseness. Pain in the chest among the laity is almost always associated with pulmonary disease like pain in the back is associated with kidney disease. This, and particularly when it occurs with a cough, brings the patient to the physician in an anxious state of mind. Hemoptysis occurred in seven patients and others frequently complain of tasting blood. Sharpe and Angle called attention to the tendency to hemorrhage in these patients. The cough associated with undulant fever may vary in severity, may occur in paroxysms, particularly at night, may produce vomiting and may not be controlled except by a narcotic cough preparation. The severe coughing attacks occur during the respiratory exacerbation or "flare" of the undulant fever and subside to some extent with chronicity. When expectoration occurs the sputum may be mucoid, glary and tenacious. If there is very much involvement of the bronchi, occasional flecks of purulent material may be mixed with the sputum. Hoarseness unex-

plained by any other cause should suggest the investigation for undulant fever. Sneezing has been frequently observed in these patients and usually occurs in the early morning. It is not accompanied by symptoms typical of hay fever, although some of these patients become allergic, as manifested by urticaria and asthma.

Undulant fever was observed in five children, two of whom had frequent "head colds" associated with a cough and with a disability more than the ordinary cold. The exacerbations are more frequent than those of an ordinary "cold" and the period of immunity may last only a few days or a few weeks. No X-ray examinations were obtained in the children.

The physical findings with reference to the chest are essentially negative except in an occasional case with more severe bronchial lesions. In pneumonic areas a friction rub with dullness and sparse deep-seated moist inspiratory rales may be present. Deep-seated moist inspiratory rales after cough may be heard over areas of bronchiectasis or severe bronchitis. Fine moist inspiratory rales after cough may be heard in occasional cases along the diaphragmatic borders. Of twenty-three adults who had severe chest manifestation X-rays were made on eighteen and seventeen showed hilar and peribronchial infiltration in a varying degree, eleven pleural thickening and adhesions, six thickened interlobar septum, one lobular pneumonic consolidation and two bronchiectasis. Injections of the basal bronchi with an opaque medium was done on five patients who had marked hilar and peribronchial changes. Two showed a bronchiectasis and one showed obstruction to normal filling but no dilatation of the tubes on the right. One patient with bronchiectasis had a pansinusitis and the other four had sinuses negative for disease by X-ray examination.

REVIEW OF LITERATURE

In a review of the literature on undulant fever it is difficult to isolate all the references to the respiratory manifestations and to condense them to a form readily assimilable. Almost every part of the respiratory tract has been involved.

Woodward reported a case of undulant fever which had a severe purulent maxillary sinusitis. Eady reported a case simulating sinus disease and one with a

pansinusitis and bronchiectasis. Angle stated that in cases that don't respond to treatment a suppurative disease as in the gall bladder, sinuses, or tonsils may be found. Carpenter and Boak reported brucella abortus was isolated from eight of fifty-six pairs of tonsils. The author reported observations on laryngeal involvement in cases of undulant fever. Kopelwitz said epistaxis is frequently seen and stated respiratory symptoms as bronchitis, broncho-pneumonia or pleurisy may occur. Scoville referred to Giordano's analysis of thirty-five cases which stated the onset followed an upper respiratory infection or bronchitis. Clauston reported a case of bronchitis of several weeks duration.

Harris stated in his experience it had simulated or caused fibrinous bronchitis and unresolved pneumonia. Levine, Myers and Leggett concluded the pulmonary changes may suggest atypical slowly resolving pneumonia. Orr reported bronchitis of a rather mild degree had been noted in about thirty per cent of his cases. Simpson stated that undulant fever should be considered in the differential diagnosis of chronic bronchitis when the diagnostic criteria are not convincing. Gilbert and Coleman reported four cases in adults in which there was involvement of the lungs or bronchi. Evans stated that bronchial pneumonia, bronchitis, influenza and tuberculosis are some of the diagnoses erroneously given to acute brucellosis. Harris in describing the onset said it is insidious, vague and may be called mild "grippe" finally resulting in acute severe illness resembling pneumonia, influenza, malaria, tuberculosis, typhoid, or acute abdominal conditions. Gilbert and Coleman said acute forms of the disease with cough, bronchial symptoms and malaise are frequently diagnosed as influenza and the more severe cases with pulmonary symptoms intensified as bronchial pneumonia.

Pulmonary lesions other than bronchitis may occur. Loewy said lobar pneumonia may develop. Johnson reported three cases of pneumonia, each of which was preceded by several months of illness, which was considered undulant fever. The pulmonary lesions required thirteen to seventeen weeks for complete clearing. Johnson also referred to Hardy's report of a fatal case of lung abscess. Hardy, Jordon and Borts re-

ported one case in which the brucella was isolated from pleural fluid. They also stated that localization has long been recognized as characteristic of brucella infections in animals and the recognition of similar conditions in human beings has not been unexpected.

Sharp in a study of the pathology of undulant fever stated that the pleural membrane may be inflamed, pleural adhesions may form and a clear transudate may be in the body cavities. The lungs show broncho-pneumonia, lobular consolidation, hyperemia about the bases of the lungs and pulmonary edema. Fifteen of seventy-five cases showed pulmonary localization. He said the tendency to hemorrhage is pronounced; at times generalized. Petechia occur in the serous and mucous membranes and in the skin. Bleeding is one of the clinical signs of the disease. He also cited Angle, who states the bleeding time is markedly prolonged.

Sprunt and McBryde in reporting a necropsy on a case of undulant fever made the anatomic diagnosis in reference to the chest and respiratory tract of fibrinous and proliferative pleuritis; pleural effusion; edema of the glottis; laryngitis and tracheitis.

Parsons and Poston reported an autopsy in which there were two distinct lesions in the lungs, peribronchiolar and endobronchiolar. Within the bronchioles could be seen great collections of polymorphonuclear leukocytes and definite inflammation of the bronchiolar epithelium. In the peribronchiolar region were large collections of round cells and polymorphonuclear leukocytes.

In a study of undulant fever in children it was noted many authors made no reference to respiratory symptoms. Dietrich and Bonyngé called attention to the persistence of the disease and late convalescence. They gave one of the symptoms as bronchial catarrh and mentioned bronchitis and pleural effusions among the complications. Kohlbry reported a child one year old with a "cold," cough and fever and with no previous illnesses except several mild colds. The X-ray showed a little mottling at the right base. Pray reported twenty out of twenty-six cases of undulant fever had definite sinusitis as proved by X-ray and had "head colds" which always occurred at times which seemed to be "flares" of undulant fever. Anderson and Pohl reported a

boy of six who had frequent respiratory infections every winter. Dooley reported a case simulating "flu." Three of Bogart's case reports of pulmonary changes were in children.

The literature on the interrelationship of sinus disease, chronic bronchitis and bronchiectases was studied. Clerf reported 82.5% of two hundred cases of bronchiectases had evidence of sinus disease. McLaurin believed that bronchiectases starts early in life and as a child the patient has colds with frequent "flare-ups" of the sinus. Hodge said sinusitis taking part in the involvement of the whole respiratory tract may date from infancy. Manges said bronchiectasis is frequently found in childhood. Clerf quoted Norris and Landis as saying chronic bronchitis is the most important predisposing factor in the production of bronchiectasis. This probably happens over a long period of time and does not explain the bronchiectasis seen in young children soon after measles, pertussis, or other infectious diseases. Primary illness may have given simultaneous infection of nasal sinuses, bronchi and lungs and the lower respiratory tract perpetuated by the infection in the accessory sinus. Solinger spoke of simultaneous infection of sinuses and bronchi and parallel development of the mucosal infections. Sanders said the upper respiratory tract is the usual source of the foreign agent causing tracheitis, chronic bronchitis or bronchiectasis. Osmond believed the usual route of infection is through the trachea and bronchial branches. Kern said paranasal sinus infection plays an important role in infections of other portions of the respiratory tract. Quinn and Meyer found twenty-two of thirty-eight patients with bronchiectasis to have co-existent sinusitis. Watson-Williams and Pickworth said bronchiectasis is very frequently due to secondary infection from naso-oral sepsis. Smith said the route of pulmonary infection secondary to sinusitis is by lymphatic absorption or inhalation. Systemic infections may be the cause of bronchial disease. Burgess reported four cases of sinusitis and associated bronchial disease. Mullen said there is abundant evidence in support that certain types of disease of the paranasal sinuses tend to produce peribronchial infections with resultant chronic bronchitis, asthma and bronchiectasis. He cited his ex-

periments of injecting ink into the antrum of the rabbit. Raffo believed sinusitis and bronchitis are frequently of simultaneous origin and, therefore, no casual property may axiomatically be attributed to sinusitis when it exists together with bronchiectasis.

DISCUSSION

It will be noted that there appears to be a relationship between chronic sinus disease, chronic bronchitis and bronchiectasis, but it is far from convincing that sinus disease plays the original etiological role in the production of the other two conditions. Most all agree that sinusitis and bronchitis may have a simultaneous origin from some systemic infection. The question may be raised as to whether there is an etiological relationship between pulmonary brucellosis and certain cases of chronic sinusitis, chronic bronchitis and bronchiectases. If there is not then there should be certain distinguishing features of the two conditions. The X-ray manifestations of marked hilar and peribronchial infiltration seen in many cases of undulant fever are rather suggestive of the non-tuberculous pulmonary changes often-times described associated with chronic sinusitis.

There is abundant evidence that undulant fever causes disease throughout the respiratory tract and the pulmonary changes reported have not been distinguished from those reported associated with chronic sinusitis. If the pulmonary changes are secondary to a chronic sinusitis due to a brucella infection then there may not be a difference. If the pulmonary changes are secondary to a systemic brucella infection and are simultaneous with the mucosal infection of sinuses and of the respiratory tract there may be a distinction. It would not be amiss to examine all cases of non-tuberculous pulmonary disease for undulant fever as well as sinusitis.

Sinusitis and pansinusitis with bronchiectasis have been reported associated with undulant fever. The brucella infection was not stated to be the cause but could have well been. The bronchopneumonia associated with undulant fever has been reported to be very slowly resolving. Lung abscess has been reported and, of course, chronic bronchitis is frequently reported. Pray reported definite sinus disease associated with colds in twenty of twenty-six cases of un-

duleat fever in children. All these conditions are recognized as factors predisposing to bronchiectasis.

Undulant fever satisfies all the criteria necessary to a disease which could produce bronchiectases. It localizes in the respiratory tract; it may persist in this localization over a period of years; it is resistant to treatment; it may simultaneously cause a mucosal infection throughout the respiratory tract; it frequently causes or initiates colds and other acute respiratory infections and oftentimes a slowly resolving bronchial pneumonia. Children who have undulant fever have been observed to have frequent colds, associated with bronchial cough and a subacute bronchial pneumonia, and this syndrome repeated each winter. This may simulate the condition frequently referred to in the literature that sinusitis and bronchiectasis may oftentimes be traced to a childhood origin.

It is not the purpose of this paper to prove that undulant fever causes sinusitis, chronic bronchitis and bronchiectasis, but rather to report further study of undulant fever in the respiratory tract and to report two cases of bronchiectasis out of five who were studied. It could not be stated from this study that undulant fever was the cause of the bronchiectasis. In non-tuberculous pulmonary disease the patient should be studied for undulant fever infection as well as sinusitis.

CONCLUSIONS

Ninety-two patients of undulant fever have been studied with particular reference to the respiratory symptoms and manifestations. Twenty-five per cent of these had marked pulmonary symptoms and eighteen who were X-rayed had pulmonary changes; the most frequent type of change being hilar and peribronchial infiltration. Thickened pleura and pleural adhesions, a broncho-pneumonic lesion and two cases of bronchiectasis were also visualized. Attention is called to the similarity of the pulmonary changes in brucellosis to those associated with chronic sinusitis.

Edward Gibbon: Every man who rises above the common level receives two educations, the first from his instructors. The second, the most personal and important, from himself.

REMOVAL OF URETERAL CALCULI PER VAGINAL ROUTE

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Medical literature is teeming with advanced scientific articles on urinary calculi. A splendid symposium on renal calculi was given before the urological section of the last A. M. A. meeting. The papers were printed in the October 14th number of the JOURNAL. Many intricate problems of the cause, effect, prevention, and recurrence of renal calculi can be found in those published articles. This paper is not concerned with physio-pathology, the anatomy involved, or the chemical make-up of ureteral calculi, though we do agree with Hugh Cabot that, given "a nucleus, even of microscopical size, calculus of clinical size may result;" also, "infection with bacteria that are urea splitting, notably the Staphylococcus, Proteus, and others, is certainly an important etiological factor." 75% of calculi start to form in the dependent lower calyx of the kidney; the heaviest sediment gravitates to the lowest level.

Gouty diathesis, parathyroid disease, and vitamin A deficiency are probable, but not proven, causative factors, especially in this country, where the diet is varied and ample.

Certain parts of the ureteral caliber are narrower than others, and at those points migrating stones are more prone to lodge. One notable point is that at which the ureter crosses the iliac artery, and, near it, enters the pelvis. Any atresia along the ureter may block the passage of a migrating stone. Statistics show that about 75% lodge in the terminal ureter, that is, about the last inch or two. There are several reasons for this: 1st, the ureter makes a rather sharp angle just before entering the bladder; 2nd, the smallest part of the ureter is near its end; and 3rd, the terminal ureter is still smaller in women, as has recently been shown by thickening of the mucosa due to hormone deficiency accompanying the pregnant state. Such thickening usually recedes, though sometimes it does not go back entirely to normal, and is then an added cause for obstruction in the female ureter.

*Read before Jefferson County Medical Society, Nov. 6, 1939.

In cases where the stone is two inches or more from the ureteral meatus, it is necessary to go into the flank retroperitoneally; however, stones lodged in the terminal inch or two of the female ureter are readily removed by the vaginal route. Operation by the vaginal route is not so dangerous as by other routes, and certainly is not so dangerous as delay, which gives infectious processes time to develop serious pathology in the higher G. U. tract. Urologists have been very successful in removing many such stones by the cystoscope, and this should be attempted first in most cases, the exceptions being when the stone is large or irregular, in which case long delay is not warranted.

The diagnosis naturally must be very accurate as to shape, size, and location of the stone. Thanks to improved cystoscopy and X-ray such diagnosis can be accurately made. Opaque substance can be injected into the ureter, or can be given intravenously. It is well to have a pre-operative bacterial checkup of the urine to know with what infectious organisms we are dealing, so that we may be able to give specific urinary antiseptics later.

The technique of the operation is not difficult. Long fingers and touch surgery are useful adjuncts. The stone is extracted through a small split, and we prefer to close the ureteral wound with very fine, rustless steel wire. Rustless steel wire is especially valuable when we are dealing with a good deal of infection, and we nearly always are if the stone has been lodged any length of time. We think it advisable also after the stone is removed to introduce a urethral catheter through the cystoscope and past the point where the opening in the ureter is made, so that the urine will be carried past the opening. An additional drainage through the vagina is recommended in all cases of infection. A few stitches in the vaginal wall complete the operation. Thus, you will see, no important organ or structure is molested in this operation; the peritoneum, especially, is not opened.

The after-care is about the same as for removal of stones from other parts of the ureter. Keeping the pH. at about 4.5 to 5.0 for a long time is especially advocated. Cooperation of the medical man is of great value, because frequent bacterial checkups of the urine, as well as general regulation of the diet, vita-

mins, and hormones, as the case may indicate, are to be carried out over a long period of time, and the case should not be dismissed too early.

What happens to the kidney with stones long remaining in the terminal ureter is well illustrated in the short motion picture we have of an advanced case of pyelonephrosis. Kidneys that are less damaged, of course, will resolve, and may be reclaimed to a healthy state by prolonged treatment. The newer urinary antiseptics are a great boon to the profession in reclaiming badly infected upper urinary tracts.

DISCUSSION

Lytle Atherton: The subject of ureteral calculus to my mind presents a most interesting study. Not only does it produce an interesting subject but also a most important one. There are several reasons: (1) Because of difficulties in diagnosis and differential diagnosis. (2) Because of size, shape and position of the calculus. (3) Because of the status of the patient. (4) Time of removal and procedure and (5) Post-operative care.

Considering the first point, the diagnosis and differential diagnosis is important because in many instances we are confronted with a condition in which we are not thinking of the urinary tract. Many have been the case wherein a diagnosis was made of chronic gallbladder disease or chronic appendicitis. The patient is submitted to an operation before the urinary tract has been looked into.

Second, the size, shape and position of the stone should be of material interest so far as treatment is concerned—whether to be removed at once or to be observed. Stones in the lower ureter are conducive to actual pressure necrosis to the papilla and tubular structure of the kidney.

Third, status of the patient—whether or not there is infection in the urinary tract. If so, they should be removed as soon as possible.

Fourth, time and method. This depends upon the size of the stone and the condition of the patient; whether or not the stone may be removed cystoscopically or surgically, depends on the experience and judgment of the surgeon.

Fifth, Post-operative care. We believe these cases should not be dismissed as soon as the stone is removed, but should be followed many months, particularly in keeping the urine as sterile as possible, by maintaining the pH around 4.5. This may be accomplished through diet or medication.

As far as removing the stone is concerned, whether it be vaginal procedure, in the female,

or cystoscopically, depends entirely on the size of the stone. If the stone is rather large, beyond 5mm. in diameter, then of course we are prone to believe the vaginal method is best. One point to remember in vaginal ureteral lithotomy, the incision should be not over the stone but rather above the stone where the ureteral tissue is in a more normal state, thereby avoiding post-operation necrosis with fistula formation.

Chapman S. Moorman: Referring to the several variations in size of the ureteral caliber or lumen we usually think of such as being about 4 in number; anatomically we designate the portions of the ureter, the abdominal and pelvic portions—clinically, the several portions of the ureter and variations in size of the ureteral lumen lie in the lumbar, iliac, pelvic and intramural segments—normally, generally speaking, these variations consist of two areas of slight enlargement of the lumen and 3 areas of somewhat narrowed lumen. One of the narrowed areas lies in close proximity to the renal pelvis, just below the ureteropelvic junction, another one at the passage of the ureter over or across the iliac vessels, and the third narrowed area just proximal to the urinary bladder, near the entrance of the ureter into the bladder wall.

It is at these narrowed portions of the ureter that urinary calculi migrating down the ureter are more frequently found, or at such points of passage downward that pain may be caused and complained of by the patient.

As the essayist has mentioned, calculus formation, secondary to existing infection is not uncommon. Temporary ureteral obstructions caused by kinks or tortuosity of the ureter, or failure of proper ureteral drainage resulting from some other abnormal condition, may cause exacerbations of the infection, or pyelonephritis, and later complete blockage of the ureteral urinary drainage, as was probably true in this case, with infection of the hydronephrotic fluid, resulting in pyonephrosis.

Various renal lesions, outstanding among which is pyonephrosis, and many extrarenal lesions, may produce abdominal tumors which can be palpated and upon urologic differentiation diagnostic dependence of major importance must be placed. You will note that diagnostic dependence has been emphasized, for even though certain physical signs are so suggestive as to make one feel quite certain of the diagnosis, we believe there is no single sign, nor group of signs, which can be considered strictly indicative of a definitely designated renal pathology.

The differential diagnosis should commence with the procedures of complete cystoscopy and urography, with but few exceptions; there are some contraindications to cystoscopy.

While carrying out the operative procedure of removal of ureteral calculus through the vagina

it is of crucial importance to always keep in mind the proximity of the blood vessels in the area, all of which are of great importance and safeguard against the possibility of hemorrhage.

It is good practice, we believe, to probe the upper and lower ureter by carefully passing a gallbladder probe of the flexible type into the incision made in the ureter to be certain no other calculi or small fragments remain and that the ureter is satisfactorily patent; the ureterotomy wound is then closed in the usual manner and the vaginal incision with drainage as described; I prefer the use of catgut.

Removal of stone by vaginal route has been largely discarded because of the frequency of the post-operative complication, ureterovaginal fistula, as well as because of the removal being extremely difficult in certain cases.

Misch Casper (in closing): Just a word as to diagnosis. Diagnosis, as Dr. Atherton brought out, is often misconstrued. Many of these cases are considered as other things. This patient was a typical gall stone patient; in fact, from her history, I thought her trouble was gallstones until after we gave her dye and Graham-Cole X-ray test. We discovered the stone after the gallbladder was proven negative. These cases are often treated for other conditions than stones. We often think they are cystitis.

In regard to the danger of uretero-vaginal fistula, that is the reason for using steel wire. If we fail to get union by first intention, and we frequently do fail because of the infected urine, then we will get union often by third intention, the wire, unlike other suture material, effectively healing in spite of infection.

Pathogenicity of Spirochaeta Pallida.— Grigoriev, working in the laboratory of the First Medical Institute of Moscow, claims to have succeeded in growing a pure culture of *Spirochaeta pallida*. Blood was taken from a vein of a patient with a diagnosis of primary serum negative syphilis and cultured on the Tarozzi medium. The patient gave a positive reaction three weeks later. No spirochetes were detected fourteen days after culture. However, reculturing yielded, six days later, a great number of typical spirochetes. This first "Moscow" strain was recultured every eight days and has yielded thus far thirty-eight generations. Intravenous injection of the pure culture caused in rabbits the appearance of typical primary lesions which contained numerous typical spirochetes. The passage of cultures in rabbits had the effect of increasing their pathogenicity. The passage of infected material from rabbits through white mice likewise did not attenuate the virulence of the organisms. The author believes that his cultures may be utilized for the preparation of antigen and for therapeutic and preventive vaccines.

APPENDICITIS, WITH REFERENCE
TO MORTALITY

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There is no doubt that there is a rising mortality in acute appendicitis. In looking through the literature for the past several years, this statement is definitely a fact. It is difficult to comprehend that in spite of new diagnostic aids, in spite of better trained surgeons, in spite of more meticulous technique and increased accessibility of hospitals the mortality in appendicitis has been slowly but definitely increasing. Vital statistics carefully compiled by the census bureau and life insurance companies have shown a small but progressive rise in the mortality from appendicitis year by year. This is the fact that makes any critical analysis of cases worth while, this is the fact that stands as a challenge to each present-day surgeon. What about the present-day surgeon? Are they all sufficiently trained to do surgery, when the question of surgical judgment is the issue?

During the period of preparation for the world war a great many doctors who had not done surgery were trained in government hospitals for war surgery. After completion of the war many of these doctors continued to do surgery, unquestionably many of them have done excellent surgery while others have not done so well.

Although I fully realize that it is not necessary to discuss the signs and symptoms of appendicitis and its differential diagnosis, however it is important to make a correct diagnosis, which if properly made, means to operate. The next important consideration is the choosing of the opportune time for operation and the operative technique. These are very largely a matter of circumstances and of surgical judgment that comes only with experience, therefore it is difficult to formulate rigid guiding principles.

The vital question of when to operate in the presence of acute appendicitis might be summed up in a few words, before the onset of peritonitis. If this were always possible the present discussion would be unnecessary. The early case of acute appendicitis demands immediate

operation. If a case is referred to a surgeon within the first twenty-four hours the mortality is practically nil. On the other hand if the case is delayed until abscess of diffuse peritonitis occurs, then the mortality increases to a surprising degree. Chill, abatement of pain and sudden drop in temperature are the three signals for immediate operation. When a chill has been followed by abatement of pain, it is always an indication of gangrene which will shortly be followed by peritonitis. When to operate after peritonitis has developed depends upon the variety of peritonitis and the condition and age of the patient. I don't believe that delayed operation is so well borne by the very young or the very old, aged patients do not stand prolonged confinement to bed while in small children the omentum is not sufficiently developed to act as a protection.

This is not the opinion of some who recommend the conservative regime in children in whom localization of the peritoneal infection is beginning. Coller and Potter at the University of Michigan and Adams and Bancroft at the University of Minnesota have found the use of delayed operation advisable in children with diffuse as well as localized appendiceal peritonitis. Coller and Potter in 1934 reported a series of 48 children with diffuse peritonitis treated conservatively with a mortality of 12.5 per cent. Although recognizing that the delayed form of operative treatment is less efficient in children than in adults, as in any form of treatment in this age group, their results using delayed operation, were superior to immediate operation and they recommend the use of conservative regime in all patients with diffuse peritonitis regardless of age. Adams and Bancroft in 1937, reported 110 children with peritonitis from ruptured appendicitis treated conservatively, sixty-seven of these patients had peritonitis, sixty-one per cent developed inflammatory masses, only 10 per cent of which formed abscesses which had to be drained, 95 per cent of the remaining cases subsided completely and were discharged to return for interval appendectomy in eight weeks. The mortality in this series of 110 cases was 4.5 per cent. It seems deferring operation is the best policy in the presence of diffuse peritonitis, a condition which in most instances might have been prevented by timely diagnosis and treat-

ment. A condition which is brought about in many instances by the depressive years that we have passed through and still are passing through. We all have seen patients that have appendicitis for days before consulting even their family doctor and have taken about any laxative and purgative known, trying to get relief from a belly ache. When they do consult a doctor, in a large percentage of cases, the appendix has ruptured and there is either a general or localized peritonitis. When these patients are seen, the question as I have mentioned before is when to operate, what type of incision to use, whether to try to remove the appendix, or let it alone for a later operation. The question of drainage, whether to drain or not to drain. I have discussed the question of delayed operation. From the literature, it seems about an even division with immediate operation. The incision: there are a few surgeons still using the McBurney type of incision. This type does not give one the proper exposure to see the condition within the abdomen. Thorough abdominal exploration is impossible through a McBurney incision and any enlargements of it will injure the abdominal wall greatly. The small or button hole incision also makes exploration impossible. Personally I prefer the right rectus incision and one of sufficient length for adequate exposure, for an appendix is often displaced and hard to find.

Whether to leave the appendix or remove it. The late Dr. Deaver stated he was frequently asked whether he always removed the appendix. The only case in which he did not do so was in circumscribed abscess of several days standing in which there was no evidence of secondary peritonitis and in which the appendix was not felt. This means the abscess cavity is absolutely isolated. If the appendix is readily accessible it should be removed, if not it should be left alone to avoid manipulation with resultant breaking of protective adhesions and spreading of infection. Also if the appendix is not removed, drainage should be used even though general peritonitis is present.

The question of drainage has probably aroused as much interest as the discussion of the treatment of appendicitis. From a brief survey of the literature the pendulum appears to have swung from

"when in doubt drain" to "when in doubt don't drain." The opinion of the earlier writers on drainage is that it seemed to have no effect on mortality. All arguments are in favor of non-drainage. Such statements as these are found in the literature, it is impossible to drain the entire abdominal cavity. The material forming the drains stimulates additional adhesions between the abdominal organs and the peritoneal surfaces and increases the danger of intestinal obstruction, a wide and weakened incision with its accompanying hernia, these developments prolong hospital stay and expense and definitely increase mortality. Drainage after operation for ruptured or gangrenous appendicitis does not subtract from the mortality but does add to the mortality.

Utrecht in Holland states the less frequent use of drainage in acute appendicitis does not appear to have an unfavorable influence on mortality. One thousand cases of acute appendicitis operated at a San Francisco hospital give figures showing decidedly less mortality in these cases non-drained as compared to those drained. In 32 cases of gangrenous non-perforated appendicitis that were drained the mortality was 9% and in 224 later cases of the same type not drained the mortality was .9 per cent, in 89 gangrenous perforated cases that were drained the mortality was 10%, while in 113 later cases that were not drained the mortality was 2.4 per cent. I have gone through the literature for these comparisons of drainage and non-drainage cases of gangrenous and perforated appendicitis and it seems that mortality is higher in the cases drained.

CONCLUSIONS

Increased mortality in appendicitis seems to be due to the following:

1. The delay of the patient in seeking medical advice, the medical treatment of the attack, the use of purgatives and mistakes in diagnosis.

2. The wrong type of operation performed at the wrong time and the wrong treatments of general peritonitis.

3. I believe and I believe most of the doctors here tonight will agree with me that non-drainage of perforated gangrenous appendicitis with peritonitis is the cause of the higher mortality in spite of statistics showing otherwise.

DISCUSSION

G. A. Hendon: It is impossible to discuss all the separate phases that affect the mortality of appendicitis. We can only choose the highlights and offer a few suggestions from these points. That there is a constant increasing mortality is without question. Certain elements are responsible and I should like to enumerate some of the most important. First. Proper drainage. I believe the value of drainage in suppurative cases is underestimated. I can't see the wisdom of confining pus in the abdomen and expecting the powers of nature to take proper care of the infection. If we are not going to drain, why open the abdomen at all?

Second. The location of the drain is next in importance. The cul de sac often receives too little attention. I mean the space between the bladder and rectum. A drain should be placed there that will emerge in the midline immediately above the pubic bone thereby giving the escape of the products of the drain a short and direct route. This point should receive special attention in addition to other means of drainage and even where the pus has been pumped out because it is prone to fill up again.

Third. The character of the drain which should possess the property of capillarity by which the lamp-wick principle is involved. Tubular drains are at a disadvantage when directed in an upward direction. The cigarette drain will fulfill the valuable and important facility of capillarity.

Fourth. The time of operation. I do not believe it is the part of wisdom to follow the so-called Ochsner teaching. The time to operate is as soon as you can gain the patient's consent unless it is a moribund case. I cannot see the wisdom of turning the patient on one side giving no food, little water and letting nature take her course.

Fifth. Adopting the so-called inch and a half incision or at any rate, a very short incision. Where you adopt the so-called method of Dr. Robert Morris which he later abandoned and which today allows the patient out of bed and on the street within a week, you will have only to follow that a short time to be convinced that it is unsafe and uncertain.

Charles Gaupin: I have been asked to discuss the question of mortality rates in appendicitis from the standpoint of the general practitioner. In Dr. Kirk's paper he stressed the importance of early diagnosis. Perhaps that is one of the most essential features in helping to bring down the mortality rate. Just what percentage of these cases the general practitioner sees before the surgeon does, I do not know. Probably he sees the majority before they are referred to the surgeon.

From the standpoint of the general practitioner the most essential feature of the lessening of

mortality is that we be trained in the accurate diagnosis of **appendicitis**. I believe that appendicitis can be probably the most simple diagnostic procedure. In other words, we can come to some conclusions very readily in some cases, in others it can be one of the most difficult diagnostic procedures. I do not know of any of us who have been out of school twenty-five years, who can't look back on cases on which we were decidedly fooled on diagnosis. I believe, as a general practitioner, we should remember that in appendicitis we can depend upon only one important feature, i. e. pain on pressure over the appendix. If we rely on blood counts, temperature, vomiting, rigidity, etc.; if we expect those to be consistently present we are certainly making a mistake in our diagnosis.

Another point important for the general practitioner is that very frequently we will have some one call over the phone stating that he has abdominal pain. It is important for us to caution those people of two things, first, not to take a purgative, second, if the pain persists longer than two or three hours, they better have a physician see them. In many cases the condition may be appendicitis.

There are cases of appendicitis with diarrhoea, but these are rare. Such cases are very ill and probably very toxic because of enterocolitis associated with inflammatory appendix.

Another way for the general practitioner to assist in lowering mortality is, when we diagnose a case of appendicitis, if the family is doubtful, call in a competent consultant. When we do make a diagnosis of appendicitis and the family insists on us waiting, the only sensible thing to do is to step out and let them get somebody else. Then, we are not responsible for wrong procedure. Another point, it is better for us to make a mistake on the safe side than on the fatal one. I am sure that all of us who have been out twenty-five years have sent cases to the operating room and felt bad because the appendix did not look fiery red. In those cases one has done the best of his ability. In the past it worried me, but now it doesn't. The patient gets well.

Another factor in reducing mortality in appendicitis is education of the public. In Philadelphia mortality has been reduced since a public education program was carried out through newspaper and radio addresses on the importance of not giving drastic purgatives in abdominal pain, until the physician has seen the case. Years ago it was a great deal more difficult to talk operation to the public. Today, I am sure that through education, when one sees a case of appendicitis, you do not have to argue with the family about the necessity of immediate operation.

I believe with the betterment of diagnostic

ability of the general practitioner and with education of the public, we can still reduce somewhat our mortality rates in appendicitis.

Irvin Abell, Jr.: A financial statement, unless intelligently interpreted in terms of its component parts is practically meaningless. I propose to present our statement on Acute Appendicitis and to interpret that statement in terms of our balance sheet.

The statement is 500 consecutive cases of acute appendicitis with a mortality of 6.2%. 314 of these were acute gangrenous appendices with a loss of 2 patients, one from bronchopneumonia and one from pulmonary embolus. 46 were acute gangrenous appendices with perforation and localized peritonitis. There were four deaths in this group, three from uremia and one from pulmonary infarct. 96 cases were appendiceal abscesses with one death from postoperative intestinal obstruction. And finally there were 44 cases with generalized peritonitis. In this group there were 24 deaths.

There is included in this series no case in which the pathological process has not proceeded at least to gangrene. The cases of simple acute appendicitis in which a mortality of one per cent would be high have been excluded. Considering the deaths in the first three groups mentioned above one notes that they are postoperative deaths encountered in all types of abdominal surgery. If one examines a large series of cholecystectomies or hysterectomies, pulmonary complications, renal failure, and postoperative intestinal obstruction will contribute to the mortality. The first three groups representing 456 of the 500 cases produced but 7 of the 31 deaths. The single group of 44 cases in which generalized peritonitis was present contributed over 80% of the deaths.

The point to be emphasized is that in any series of acute appendicitis the mortality rates will vary directly with the cases of generalized peritonitis. One must include only those cases operated on, for unless this criterion is observed the rates vary widely. Returning to the original idea unless one knows all the details concerning a series of surgical cases one can not evaluate the mortality rate of that series. It is obvious that the rate in acute appendicitis will vary widely with the distribution of cases amongst the various pathological groups, the greatest single factor being generalized peritonitis.

E. S. Allen: The paper by Dr. Kirk is opportune and interesting when we realize that the mortality for appendicitis in the U. S. last year was 20,000.

The essayist attributes some factors to inexperienced operators and to trauma in breaking up protective adhesions, when to operate or to support nature and wait for abscess formation

and drainage is a problem even for the experienced surgeon. As shown on the screen by Dr. Abell the highest mortality occurs in cases of general Peritonitis. A certain percentage of these cases get well by drainage, plenty of fluids and morphine; others by not operating and supporting nature by fluids and sedation. It is a controversial point which requires unusual judgment to decide when to operate and when not.

It has been our experience that most cases in which the offending organism is the colon bacillus get well, but the streptococcus or pneumococcus give a very high mortality.

In intestinal paresis or obstruction from agglutination of coils of gut post-operative, we have found the Miller-Abbott tube of great help, formerly we would resort to an enterostomy to relieve intestinal stasis. The Miller-Abbott tube by drainage from above is far superior to enterostomy, and a simpler and safer procedure. It has not been necessary to subject a single patient to enterostomy since we began using this tube.

As to which case to drain and in which to close the abdomen is generally a personal equation.

A gangrenous appendix with a quantity of cloudy peritoneal fluid, and the appendix unruptured, and with no definite fecal or frank pus soiling, we close without drainage, feeling that the bacteriolytic activity of the peritoneum will take care of the situation. If we find it necessary to drain, as suggested by Dr. Hendon, we place a fenestrated rubber tube in the cul de sac or lowest point in the pelvis and a cigarette or rubber tissue drain at the head of the cecum or in the cecal fossa.

In an acute appendicitis where fluid is encountered, as soon as peritoneal cavity is opened, we coffer down the operative area with moist saline sponges before looking for the appendix, thereby locating the ileocecal valve we know that the base of the appendix can't be very far away. If the appendix is retrocecal or retroperitoneal, we clamp the base, ligate and invert the stump and remove the organ in reverse, certainly less trauma is done.

The meso appendix is clamped and ligated with little difficulty. There is certainly less danger of injury to adjacent structures.

We employ a right rectus incision if we feel that the appendix is ruptured or if patient is very fat, however the grid-iron incision can be converted into a rectus by splitting the rectus fascia up or down. We have been converted to the stainless steel wire in closing, especially when dealing with an infected wound. This wire does not harbour infection as does silk and catgut. The wire used in the fascia is very

small and pliable, and can be tied with as much ease as catgut or silk.

When to operate, and when to drain and a respect for nature's protecting wall are all factors in appendiceal mortality.

Oscar Bloch: There are many things I would like to say upon this subject, however, I will restrain myself and stress two point, namely diagnosis and drainage.

As to diagnosis, I wish merely to remind you that the position of the appendix varies; I remember, particularly, one case where the appendix was pointed to eleven o'clock, being in fact, adherent to the gallbladder.

Now as to drainage; in order for drainage to be efficient, warm, moist compresses should be applied, thus encouraging capillary drainage.

And again, one must keep in mind that drains produce fecal fistulae and must not remain too long.

M. J. Henry: I think that in any discussion of appendicitis one could talk forever. One point rarely mentioned in speaking of the mortality following appendicitis is the location of the appendix. If the appendiceal abscess be to the outer side of the colon, the patient will probably get well; if to the inner side, the patient will probably have a stormy convalescence, with grave danger of peritonitis or obstruction. One rarely sees post-operative obstruction following appendicitis, in which the appendix is to the outer side of the caecum, but we see it not infrequently when the appendix is situated near the mid abdomen.

Misch Casper: In Chicago last week I heard an interesting discussion by Dr. Haggard on appendicitis with gangrene and spreading peritonitis, a usual complication. He pointed out by statistics that mortality was three times as great where purgatives had been given as where they had not been.

Another point stressed was education of the public. In one town in New England there were sent out with the gas bills five things to do and not to do in appendicitis. Education there has reduced the mortality to almost nothing. That record shows what can be done with education, in early cases.

Of course, we do not always get cases early, but we should. Young doctors take blood counts—one of the five important symptoms. A good many belly-aches will not go on to serious complications if the patient is found to have a high blood count. In this respect (taking blood counts) the younger men are better than the older. Another point is that the surgeon has not lowered the mortality in advanced cases in the last fifteen years. The Miller-Abbott tube is the most important advance in the last

five years in handling advanced cases of appendicitis.

Harold Gordon: There is one further point worthy of emphasis and that is the complication of multiple abscesses of the liver. This is a rare complication but an important one. It comes at a time when the relatives are apt to consider the patient safely convalescent. I am a little surprised that this complication did not figure in the mortality statistics presented by Doctor Abell, because it is most apt to occur in the very type of appendicitis dealt with by Dr. Abell—acute gangrenous appendicitis. For years now, as a pathologist, I have made it a point to examine the veins of the meso-appendix. If these show purulent thrombophlebitis, I warn the surgeon that the phlebitis is apt to be followed by multiple abscesses of the liver. This warning adds to the surgeon's cares and responsibilities but it affords him an important "cut" and puts him on guard.

Joseph M. Frehling: In regard to the remarks made by Dr. Henry, they are really a form of answer to Dr. Hendon, who mentioned the direct and short route to drainage. It seems to me more important to find the seat of the pathology. For that reason in acute appendicitis I prefer the McBurney incision, where the patient points to maximum pain. We should lay stress on the point of pain, which will be the center of pathology. The incision should be made in the immediate neighborhood of that point. Collection of pus can be easily removed by suction and it is important to have continuous suction in these cases. Where one is able to remove the focus of infection, I can see no reason why we are expecting too much of nature to take care of infection, when we use continuous drainage throughout the operation. Otherwise drainage must be instituted. When the focus has been removed I consider we have no use for prolonged drainage. A drain will only drain at the immediate vicinity. This is but a small portion of the peritoneal area.

The incision most direct is the shortest route to the appendix and is the best. We are speaking of appendicitis, and it is rarely necessary to enlarge the incision if made directly over the pathology. If the patient points in the upper abdomen, look in that region. Where the appendix has been removed drainage is entirely unnecessary and adds to morbidity. If distal to pathology you are more than likely to expose clean areas of the peritoneal cavity, particularly in the cases that Dr. Henry mentioned. For that reason, just as the direct route is the shortest route for drainage, so it is for the relief of pathology.

HENOCH'S PURPURA

B. W. SMOCK, M.D.

Louisville

The purpuras offer one of the most interesting chapters of medical literature, including as they do under this designation many conditions which are quite different from an etiological standpoint and have in common only the rather inadequately explained bleeding. These conditions are also closely associated with hemophilia, however the big difference being that in the purpuras there are multiple bleeding points.

The purpuras may be said to be divided into two main classes: those in which there is a change in the circulation, (a decrease and change in the blood platelets) the so-called thrombocytopenic group and those in which there is no change in the platelets and the bleeding is due to other causes. This group is known as the non-thrombocytopenic or anaphylactoid purpuras.

It is this latter group that I wish to discuss. Essential among this so-called Anaphylactoid purpuras are found those erythematous skin lesions formerly classified as Henoch's purpura, Schonlein's purpura, Rheumatic purpura, peliosis rheumatica, and Osler's erythema.

The term anaphylactoid is of rather recent origin and is probably a step forward in that it is much more descriptive of these conditions than the proper names associated with them, because it appears from recent studies and investigation that these diseases are associated in some way with an allergic imbalance.

The clinical picture presented is that of a food or chemical poisoning, and is quite similar to many anaphylactoid reactions. However there still may be other impressions as to its etiology. Some like Glanzmann believed it was due to bacterial infection producing a foreign protein that caused this type of reaction, while many others believed some substance of a histamine-like nature was absorbed from the intestinal tract. Most interesting though, is the fact that the association of arthritis, Purpura, and abdominal colic was observed by our predecessors and that they with unusual clinical acumen differentiated it from true hemorrhagic purpura. The patho-

logical physiology is rather vague presenting as it does so many varied functional and peripheral changes. The characteristic change is the lesion in the small blood vessels, possibly the capillaries, which results in congestion, hemorrhage or exudation, singly or in different combinations. The blood is not changed morphologically from normal except when there has been rather heavy hemorrhages with a resulting severe secondary anemia. The bleeding time and clotting time are usually normal. There is rarely a change in the blood chemistry.

The clinical course of these diseases is most varied and ranges from a minor condition to one with fatal termination.

The so-called Henoch's purpura most often has its onset with severe abdominal cramps often accompanied by nausea and vomiting, a low grade temperature and a feeling of general malaise. It often presents joint pains and skin lesions similar to those seen in hemorrhagic purpura. These petechiae may not occur until later and often lead to confusion in diagnosis. Constipation is the usual rule, however there may be a diarrhea. Blood is often found in the stool. It may be red and black and may continue until there is a severe secondary anemia that is fatal. There may be hemorrhage from the kidneys with resulting kidney destruction from obstruction of the ureters or kidney pelvis with clotted blood. The skin lesions are usually petechial but may have an urticarial character. This skin eruption may come in crops and last throughout the attack or improve and recur at irregular intervals.

The diagnosis of anaphylactoid purpura or Henoch's purpura should be made without great difficulty except under two conditions; first when the abdominal or joint symptoms precede the appearance of the skin eruption, and second, when a simple petechial rash is the only symptom. In the first case acute abdominal infections must be suspected and a diagnosis made only after carefully studying the laboratory and physical findings. When there is intestinal bleeding without the skin eruptions one must give careful study to differentiate from ulcers and diverticula as well as malignancies. Simple petechiae may be distinguished from purpura hemorrhagica by the platelet count. Treatment of Henoch's or anaphylactoid pur-

purpuras is most unsatisfactory. It is necessary to use all the known remedies advocated for the hemorrhagic type if the bleeding persists. Snake venom is used as well as vitamin K. Transfusions are probably worth more than any other agent and offer the most in successfully combating the bleeding. Atrophine and adrenalin may be used in treating the abdominal cramps, but most drugs have proved of very little help. Recently there has been added to our armamentarium a new drug for use in this type of bleeding, namely, oxalic acid. It has been developed by Dr. Brown of Kensington Hospital in Philadelphia.

Most attacks of Henoch's purpura are self-limited and run much the same course with or without treatment, however some become quite serious as will be illustrated by the following report which will give an idea of the clinical picture of a severe case of Henoch's purpura.

A male, white, 51 years of age, of an obese type, gave a history of falling two weeks prior to admission to the Kentucky Baptist Hospital and injuring his left wrist. He consulted a physician who gave him some aspirin and wrapped his hand with adhesive plaster. For some two or three days following the fall he continued his work noticing, however, on the third day that he was developing some soreness in his knees and later in his elbows and shoulders. On about the fifth day he developed a headache and felt rather bad generally which caused him to come home at noon and go to bed. Sometime during the sixth day he noticed that there were some red spots beginning to appear about his lower abdomen and later that there were red spots just under the skin on his lower extremities and arms. The joint pain had become more severe and he was beginning to have rather sharp cramp-like pains in his abdomen. He then became worried and called his physician. A blood count was immediately made with negative findings as to any change in the normal picture. During the next 24 hours the abdominal pain became so severe that it was necessary to use an opiate to quiet him. He was advised to enter a hospital for diagnostic study and for treatment. This he did, but before being moved from his home he had a bowel evacuation of a tremendously large stool tarry black and very offensive. On

admission to the hospital there were numerous stools during the remainder of the day all filled with occult blood and a few specks of bright red blood. A blood count was made and there had been a great change, both cells and hemoglobin showing considerable diminution with no relative change in make up, the platelets being about normal. However, there was some lengthening in both clotting and bleeding time. He was then typed and cross matched and given the first of ten transfusions. His condition became more alarming as the days passed regardless of the fact that he was receiving vitamin K in the form of Klotogen and snake venom at regular intervals from the time of hospital admission. His blood counts continued to go down and he was presenting a rapid mental as well as physical decline. It was necessary to use morphine several times a day to control the abdominal pain. He was unable to take any food to speak of although he did drink large quantities of water. His skin eruptions had become more extensive and the lesions confluent. The skin over the buttocks which came in contact with the bed pan became ulcerated. After nearly four weeks of hospital residence, he was much worse than at any other time and his blood picture was as follows: R.B.C. 2,090,000, Hgb. 43.8, Index 1, W.B.C. 6,550, Total Polys. 68%, Platelets 271,000. At this time he was given a dose of Koagamin, 2 cc intravenously and 2 cc intramuscularly. The following day there was a marked improvement in the number of stools which had been running from 6 to 20 a day and a big improvement in their color. He was feeling better, joints not so sore and most of the pain gone from his abdomen. He ate a fair breakfast, a light lunch and dinner. The Koagamin was given daily from then on, and the patient left the hospital ten days after the first dose of Koagamin.

Since leaving the hospital there has been a gradual improvement and the blood picture is about normal at present.

DISCUSSION

A. C. McCarty: Both the consideration of purpura generally and this interesting case report by Dr. Smock, have been greatly appreciated by all of us, I am sure. I am especially grateful for the opportunity of reading his paper two days before its presentation. (Future essayists please note).

I am accustomed to thinking of hemorrhagic

disorders under three groupings. The first is associated with platelet deficiency (so-called thrombocytopenic purpuras, of primary and secondary origin.) The secondary type would best be treated by removal of the cause, were not this cause of such "untouchables" as aplastic anemia, leukemia and bone marrow malignancies. The primary purpura (hemorrhagica), however, seems best attacked with transfusions, splenectomy, vitamin C intravenously and possible roentgen therapy.

Group two is associated with a clotting defect. Here one sees hemophilia, pseudohemophilia and deficiencies of a globulin fraction in blood plasma, fibrinogen, prothrombin and vitamin K. Therapy includes the use of calcium, transfusions, bile material and fat-soluble, vitamin K (from dry alfalfa or putrifying fish meal); also koagamin.

Thirdly, purpuras associated with capillary defect are due to infections, allergic or "toxic" (anaphylactoid as Dr. Smock says) menstrual and other conditions, causing increased capillary permeability. These seem best cared for by the use of estrogenic substances, removal of infectious foci, as well as vitamins C and P in substantial amounts ("P" from 50 milligrams of citrin intravenously, for example). Histamin, mentioned by Dr. Smock, is becoming a popular approach to allergic states (Eustis of New Orleans; Mayo Clinic investigators; et al.). Snake venom has proven itself in many cases and transfusion is again a sheet anchor. Blood banks now so widely established, and the use of placental and cadaver blood, broaden the field. Careful typing and cross-matching cannot be too soundly stressed.

Finally there is koagamin. I have shared Dr. Smock's interest in this product since it first appeared in the public print. Why an oxalic acid product should prove to be a stop-gap in hemorrhagic conditions is hard to explain. Yet helpful it seems to be. Dr. Deaver and others often have cautioned against the man who has "a" case. Probably Dr. Smock would like to have several more purpura patients for koagamin trial. I have noted its definite value in urologic, gastric, lung and nasal hemorrhage, where snake venom, calcium, congo red, and the like, have proven of little or no value. I have observed no untoward effects, save that when used intravenously, Koagamin apparently moderately increases hemorrhage for the first few minutes.

I congratulate Dr. Smock on his excellent results in this difficult case. I hope that others of you will give Koagamin clinical trial and report quite frankly your results. It is readily available, reasonably inexpensive, and apparent-

ly not irritating by muscle or vein. I have been watching for an A. M. A. report on this product, but so far I have seen none. As many of you know koagamin contains 2 clotting units of an extract of Shepherds Purse—active principle: Dicarboxylic acids. It promotes prothrombin formation, increases blood viscosity, and is antagonistic to Heparin and Hirindin.

Misch Casper: Like many other doctors, I am allergic, and will present my case as a patient. I have been using histamine to desensitize myself and to prevent a supraorbital headache. The instructions of the Mayo Clinic start with very small doses, given hypodermically twice a day, and then increase the dosage gradually until a maximum is reached. During the three weeks that I have been following these instructions I have had only one headache, and am therefore very much encouraged. It is true that the Mayo Clinic has reported only 84 cases similar to mine, but as these have had splendid results, I believe the method is well worth trying. General medical men may like to know of any experience in treating allergic headache by the use of histamine. Soon there will no doubt be many more cases to report.

Frank Stites: I had the privilege of seeing this patient at the Baptist Hospital. Dr. Smock covered the subject very thoroughly. One thing he did not bring out, although I do not think it has any particular relation, was that the patient was a diabetic, whose blood sugar was quite high. Even with a restricted intake the blood sugar remained high.

As Dr. Smock mentioned, in a period over many days, with routine treatment the patient became worse. The only benefits were the transfusions, of which there were ten. It was remarkable to see the changes with the acid. I have enjoyed seeing the patient tremendously, and recommend use of this preparation in similar cases.

B. Wilson Smock (in closing): It has been a pleasure to present this paper and case report. In a search through medical literature I found so little on this subject that I hoped someone in the discussion would present more information about the etiology.

At a later date I hope that I will have more information about oxalic acid and be able to present this to the Society.

House Dust Antigen.—The Cohens and Hawver find that a dialyzed extract from a suitable sample of linters will give nonspecific reactions in normal and in allergic individuals when judged by the results of passive transfer experiments as well as by direct endermal tests.

TREATMENT OF ARTIFICIAL
MENOPAUSE

ROGER IRVING LEE, M.D.

Boston, Mass.

In the words of a very eminent man who once said, "I thought I was speaking to ladies and gentlemen but apparently I am not," I put on this yoke (of the loud speaking apparatus) and will speak into this infernal contraption. I got the first time what your Chairman said when he announced that at five o'clock at some distance from here there would be a very important function, and I certainly will not keep you until that time. He made other references also to the torrid conditions and it is perhaps appropriate that one of the symptoms of the condition of which I am about to speak is that of hot flashes. To a northerner these conditions do not seem to be as much of a flash as rather a continued process.

My interest in the subject of artificial menopause dates back for a good many years, back to the time when they were doing ovariectomies for a wide variety of conditions. The results of ovariectomy were of course fairly standard, the patient looked well, seemed well, was surgically perfect, but that patient led a rather miserable existence and it was assumed that it was on account of the loss or lack of ovarian substance. As our surgeons got rather more radical and rather more expert, they began to produce other cases which fell into the same category. Certain very wise surgeons, however, were very well aware of the fact that you could not do a so-called panhysterectomy without a certain amount of possibility of future damage. There came, then, in the surgical world, a considerable dispute as to how much of the pelvic organs should be removed. Our more experienced and more wise surgical confreres at once took the position that in certain conditions where there was already considerable damage, a panhysterectomy could be sometimes done without very much further damage. That was a question of experience and not at all a question of anything that could be predicted in advance. It was the unpredictable events which interested me particularly. It does happen that when one interferes with the pelvic apparatus one may get into difficulties; by removing fibroids ovarian tumors may follow and vice versa. The

experienced surgeon recognizes that and takes his chances thereby. Nevertheless, within recent years there has grown up a very great tendency to remove all of the organs in the pelvis because there is left then no possibility of further surgical complications. The result is that the patient is perfectly well surgically but may be far from well from a medical point of view. Those patients were called nervous, and they were given over to the psychiatrist and those who were interested in psychotherapy, but with very little result. Even the modern psychotherapy does not seem to help these individuals who have had an artificial menopause.

Those patients have increased very much in the last ten years. They have been patients usually who have had a minimum of surgical pathology upon whom a maximum of surgical treatment has been done. Within the last ten years, however, we have had something new in the way of procedure. I refer, of course, to irradiation for the purpose of stopping menstruation which may be excessive, may be troublesome, or what-not; and these cases which have been so treated represent another great group of the artificial menopause.

These patients have come to the general practitioner and to the internist with all of the wide variety of complaints that we normally associate with the ordinary menopause which does occur in aggravated form apparently in certain otherwise normal women. Some of these cases go through an involuntary psychosis, so-called, and such cases are not much benefited, if at all, by the modern psychotherapy. They have presented a pathetic group, because nothing seemed to do them any good, and they persisted in their symptoms, the symptoms of the menopause, which I shall not go into.

About this time we began to get a perhaps different concept of what had happened to those patients, because in our studies on some of the other forms of endocrine unbalance we found that it was not as simple as we once thought it was. For example, there are plenty of patients with a low basal metabolic rate who cannot tolerate thyroid, or if they tolerate thyroid, the thyroid does not do them any good. They are not the outspoken cases of myxedema; they are those cases on the borderline with an endocrine unbalance, with a diminished thyroid secretion, but the moment thyroid therapy is exhibited

they have many other difficulties, some of which are worse than their original complaint.

So time went on until it was found that by the administration of certain hormones, by the administration, as we thought, of the ovarian hormone, a substitution was made for the ovarian tissue which was removed. However, it was nowhere nearly as easy or as simple as that because it became apparent that by removing the ovaries something else was done than the mere removal of two organs which were essential to reproduction. As a matter of fact, there is a certain amount of evidence that the ovaries are only concerned in reproduction and are not much concerned in many of the other features which are ordinarily associated with them. At the present time, for example, it is the happy fad to speak of the pituitary as the master gland, the gland that controls everything, and it is known, for example, that most of the sex impulses come not from the ovaries but from the pituitary. In confirmation of that are the clinical evidence that the removal of the ovaries is not at all commonly associated with diminution of sex urge or sex impulses, but may be on the contrary associated with an increased amount of sex urge and sex impulses. So that when we began so enthusiastically to treat these patients with various ovarian substances, ovarian hormones, and so forth, we found that the problem was much more complicated than was anticipated and that it was not at all a question of substituting for the missing ovaries some ovarian material. As a matter of fact, as you all know, the substance which is mostly used following the very remarkable researches of Doisy is a substance which is obtained in crystalline form from the urine of pregnant women, and this substance thus obtained can be actually standardized from its effect upon some of the lower animals, usually rats. This substance does not work as a pure ovarian substance; it unquestionably works through the whole chain of the endocrine glands, and it is on that account that we have come into many of our present difficulties.

As these professors of therapeutics, as I always call the traveling agents of the drug houses, come around to our offices and extol the many virtues of this or that drug, they would have us believe that if a woman is castrated in any one of the ways which I have mentioned, all one has

to do is to give her the appropriate preparation from that particular drug house and her troubles and your troubles are entirely over. But we have found that exactly the same situation occurs as occurs in these individuals who are deficient in thyroid and in whom the administration of thyroid is promptly accompanied by marked headache, various disturbances which we can attribute, if we will (we might as well attribute them to that as to anything else that we don't know exactly what it is) to difficulties in the pituitary gland. In other words, the administration of these substances does not act as a replacement of the ovarian tissue, but acts as a general stimulus of all of the endocrine apparatus.

It is reasonably certain that most women do, as they do in their ordinary menopause, gradually accommodate themselves to the condition that confronts them, and that is true of the artificial menopause. It seems to be unquestioned that other glands take up certain of the activities in the way of stimulation and what not that the ovaries did. As I said, it has nothing to do probably with sex, but has a great deal to do with general behavior, nervousness, mental symptoms, and the like.

We have, as a result of a great deal of research, particularly the research of Doisy, various estrogenic preparations, all of which have some particular name, of which theelin, progynon, and others, are of course familiar to you. There is no question but what the administration of those hormones very often achieves the happy result which we would like to see. In the milder cases, particularly in the normal menopause, those results are often easily obtained and may be lasting. However, in the case of the artificial menopause, due to whatever conditions, those results are not always obtained. As I said before, surgically the patient is all right, the patient looks well, but these queer endocrine glands have had some disturbance which alters the behavior of that particular individual. It is fashionable to say that those endocrine glands operate through the autonomic nervous system, or one-half of the autonomic nervous system, but that we do not know. All that we know is that these patients are invalids from an ordinary medical point of view.

We administer these hormones, these estrogenic substances, which are of many natures and of many sources. One,

as I said before, is a crystalline substance obtained from the urine of pregnant women; another is a substance obtained from the placenta. It is possible now that we know more about the chemistry of these things to manufacture some of them synthetically. When we have the chemical formula we are very much surprised to find that the chemical formula of some of these substances, for instance the sex hormone, is not unlike the chemical formula of one of the vitamins, and it is not unlike the chemical formula of one of the sterols which may be used like digitalis in cardiac therapy.

If these substances which we call hormones were of the nature that the endocrine gland substances were a generation ago there would be no need for anybody to make such a discussion as I am trying to make here now, because all of the glandular substances a generation ago with the glorious exception of thyroid, and possibly one or two others, were inert, and those substances could be administered almost at will and would accomplish no harm, at the same time accomplishing no good. But these hormone substances are quite different; they are extremely potent substances in many and mysterious ways. One does not know exactly what the outcome is going to be of this enthusiastic wave of giving these substances of very high potency. It has been suggested, for instance, that because of some similarity in the chemical formula of one of the sex hormones and the carcinogenetic substance, there is an intimate relation between carcinoma and some of these hormone substances. Certain it is that experimentally in animals that are susceptible to certain animal tumors, there is an increased tendency for them to develop those tumors, but far be it for me to argue that that might hold in human beings, because the animal tumors are not like our human tumors and the animal does not react in the same fashion as humans do in any event.

However, we have seen enough of the potency of these substances to make us extremely cautious. We see them clinically and all one has to do is to see once an elderly male monkey after some of these hormones, sitting off in a corner rather ashamed of himself because his breasts are enlarged and are exuding milk, to know that these extraordinary

substances are not substances to trifle with.

There have been many substances developed from many substances, synthetically, from the placenta, from the pituitary gland itself, sometimes from the ovaries but those substances have not been very effective. Many of these substances by different chemical arrangement from the same source have entirely different effects, and we may find from the same substance something which is estrogenic, as we call it, something which is growth producing, something which is thyroidotropic and what-not, all from the same source, all indicating the fact that we are dealing with substances which when they get into the human system, and as can be demonstrated in animals may have a wide variety of effects and not at all the effect which we calculated. For example, it is possible to assume that some of these substances given to replace ovaries will have an effect exclusively upon the pituitary; other substances may have their effect almost exclusively upon the thyroid gland, upon the adrenal gland, and probably upon all of the other glands. Furthermore, it is perfectly possible that many of these effects are indirect in their origin, that it isn't the direct effect upon the thyroid gland, the ovary, or the adrenal, but the indirect effect of one or the other glands upon these, thus creating what we like to call a glandular unbalance.

In the therapy of these cases of artificial menopause my only preachment would run something like this. We have these very potent substances, and it seems to me as a clinician to be the part of wisdom to take one of those substances and to study that substance, to know how it behaves, to know how it acts, and depend largely upon that one particular form of estrogenic substance, if we are using the estrogens, and not to mix that up with other substances about which we have had very little experience. For example, one sees in the literature that not only do they give the female estrogenic substances to females but they give it to males and they give the male estrogenic substances not only to males but also to females, thus indicating, if these results are at all credible, as they probably are, that these hormones are rather without sex-linked effect in many instances, although in some instances of

course the sex linking is very important and very vital.

The hardest part of the whole situation, it seems to me, is that it is quite unpredictable as to the behavior of any individual to any one of these remarkable hormones. I simply would like to emphasize once more a fact that we are now beginning to appreciate, and that is that the behavior pattern of a man or woman is somewhat dependent upon his ancestors, and somewhat dependent upon his environment. Yet many of the factors of environment and of heredity, produce their effects through these endocrine glands. But in the last analysis, it seems to be true that much of our behavior patterns as human beings is dependent upon the proper working and the proper correlation of all of these mysterious organs that we call endocrine glands and upon the proper utilization of the natural hormones, also when one adds a hormone which has not a precise effect as we now know it, and when one adds particularly these hormones in very high concentration and of very great potency, one is letting loose a good many agents of which one has no idea and which may be in the end extremely detrimental. I say that word of caution with the greatest belief in the efficacy of many of these hormones, whether they are administered subcutaneously or by mouth or through the skin or into the vagina.

I would like, in closing, merely to point out that we have at hand, ready for use, a very remarkable series of substances which we call hormones, which may give brilliant results but which are more potent probably in the human economy than anything else that we have ever known, and that in strong solutions, in strong potencies, those substances may have very deleterious as well as these very favorable effects. (Applause).

DISCUSSION

W. O. Johnson, Louisville: Dr. Lee has so beautifully presented the subject of artificial menopause and shown that it is a variable state, presenting individual characteristics which appear as the result of an unfortunate disturbance of glandular inter-relationship. The treatment cannot be reduced to a formula and cured by "shots" alone.

The best means of treatment of artificial menopause is to avoid the production of it. This can be brought about by the most conservative

treatment of so-called "bad ovaries," and avoidance of the removal of ovaries whenever possible, for the cause of the so-called "bad ovaries" usually arises from disturbed pituitary function, and in a similar manner the avoidance of treatment of bleeding cases with X-ray or radium until the cause of the bleeding has been determined, and if possible, eradicated. Many times the results of such treatment are worse than the disease itself. The condition we so often see so treated is in the girl between 18-20 years of age with uterine bleeding as a result of an endocrine disturbance, which, we, as yet, do not completely understand. In such cases the ovaries are doing their best with the stimulation they have, and it certainly is a hardship on the part of the ovaries to have the remaining portion of the ovarian tissue disturbed even for a short time with X-ray or radium treatments. You may temporarily stop the bleeding, but you certainly impair to a certain extent the ovaries. This is like the ostrich that sticks its head in the sand and because the sand does not hit him in the face, he does not believe there is a sand storm. In such cases the glandular disturbance has been made worse and it takes a much longer time to rehabilitate these patients. One of the things which we lose sight of in conditions of artificial menopause in the rehabilitation of these patients is that we are not dealing with a pelvis, but with an individual, and I think some of the most beautiful results are obtained by a painstaking understanding of the individual problem and a personal endeavor to rehabilitate that individual in her environment. Again, you have not a normal individual, and by painstaking understanding and rehabilitating that person's general physical condition, you certainly can do a lot toward helping her get back to what she can call normal.

The administration of estrogenic substances and other substances which Dr. Lee has pointed out is of some help, but we should not depend entirely upon "shooting" a person with endocrine therapy, and because they don't get well tell them they are nervous and send them to somebody else to get them off our hands. I often see women who have had as many as four different kinds of "shots," and who come into the office, for lack of better expression, "reeking" in endocrines, and who are worse off than before they were treated.

Irvin Abell, Louisville: I should like to emphasize what Dr. Johnson has said, namely, that the conservative surgeon of today has long realized that there is no replacement for ovaries that have been removed, there is no treatment that will actually reproduce their function. Of course, in dealing with cancer one must be willing to accept the disadvantageous symptoms

that result from destruction of the ovaries; the saving of life is of prime consideration and the patient must be content for life, even though she suffers an inconvenience as the result of the treatment which has been given her.

We have had opportunity to observe not alone the general discomforts which have been mentioned by Dr. Lee, but the local discomforts which are among what he terms the unpredictable, the tender vagina, the contractions in the vagina, a condition practically representing an atrophic vaginitis in young women who have been subjected to irradiation, the types of sensitiveness about the bladder for which one can find no local explanation, no infection, no change in the uterus—all of those have been noted following irradiation, and in my own experience few of them have been benefited by endocrine therapy. Some few of the tender vaginas have been helped by suppositories containing estrogenic substances.

I think it is well for us to remember, too, what he has brought out, that estrogenic substances may produce untoward results in localities not wished for. He spoke of the monkey sitting over in the corner mourning because of the unusual development of his breasts, and I am sure those of you who have followed the literature in regard to the treatment of undescended tests with hormonal therapy have found many reports of premature development in children, and other untoward instances, which were very, very much worse than the undescended testicle that had given the child practically no trouble.

Again, in closing, I wish to express to Dr. Lee our appreciation of his coming to our torrid zone and giving us something really worth while to think about.

Roger I. Lee (in closing): Of course you recognize the fact that Dr. Abell was the wise and experienced surgeon to whom I alluded in my introduction. I am very glad that Dr. Johnson said what he did say, because certainly there is a tendency for the young woman to say, "Oh, you can now be X-rayed and you get rid of the 'curse' and you don't have the danger of pregnancy and all you have to do is to take a jab once a week and you'll be fine," and none of those remarks is quite true.

Edward Howe: I long ago learned that the stars will not desert their usual course if my opinions are not accepted. But many others seem to believe an outrage has been committed if there is one person alive who does not believe as they do.

BLOOD DYSCRASIAS ASSOCIATED WITH ANGINA

MURRAY L. RICH, M. D.

Covington

and

LUTHER BACH, M. D.

Newport

The occurrence of ulcerative or exudative lesions in the throat is not rare. The general practitioner, the pediatrician, and the nose and throat specialist frequently see patients whose chief complaint is a sore throat. Usually the condition is confined to the tonsils or the pharynx, and is not considered serious. Occasionally, however, it is a symptom of a marked disturbance in the hemopoietic system, and should be regarded a part of a systemic disease. It is with this latter group of cases that this discussion is concerned.

It is well known that the throat normally harbors a number of different organisms. A careful search will nearly always reveal the presence of streptococci and of Vincents fuso-spirillae. These are held in abeyance by the normal protective mechanisms of the body, chiefly by the polymorphonuclear leucocytes in the blood, and thus do not cause any particular trouble. However, if there is a marked diminution in the number of the neutrophils, the normal throat flora may gain entrance into the tissues and give rise to ulceration or exudation. We can thus expect throat lesions in any blood disease in which there is a marked diminution in the number of normal circulating neutrophils.

A common condition which causes this set of circumstances is infectious mononucleosis. This disease was first described by Pfeiffer in 1889, and since then has been recognized in both an epidemic and a sporadic form. It begins rather gradually with sore throat, malaise, fever, and lymphadenopathy. About four out of five patients complain of sore throat. There is marked redness of the fauces, and swelling of the lymphoid tissue of the tonsils. A large number present a membranous angina which is somewhat like that seen in diphtheria. Less often there is an exudate similar to that seen in follicular tonsillitis. Smears taken

from the exudate are usually positive for Vincents organisms. The enlarged lymph nodes are a constant part of the picture. The adenopathy usually begins in the cervical region and later the axillary and inguinal nodes become palpable. The glands may be somewhat tender, especially in the cervical region, but they rarely suppurate. The spleen is often palpable.

The diagnosis is made by the characteristic blood picture. The red cells and the hemoglobin are not affected and this helps to differentiate it from leukemia. The blood platelets remain normal and thus there are no bleeding phenomena. At the onset the white count is often as low as 4,000 or 5,000, but it rapidly rises as the glands enlarge until it reaches a height of 15,000 to 20,000. The differential picture shows a marked increase in the percentage of lymphocytes at the expense of the neutrophils. The lymphocytes are abnormal; they are large and often vacuolated, but as a rule they do not present the picture of immaturity that is seen in acute leukemia.

A recently discovered aid in the diagnosis of this condition is the heterophile antibody test. Normal human blood serum rarely agglutinates a suspension of sheep red corpuscles in a dilution exceeding 1:8. In infectious mononucleosis, the titer runs from 1:64 to 1:4,000. Serum sickness will give a somewhat similar reaction, but as this is hardly likely to be confused clinically with infectious mononucleosis, the test remains a valuable one.

The disease usually lasts two or three weeks, though relapses may occur. The outcome is practically always favorable, and complications are rare.

The second blood dyscrasia which frequently causes an angina is malignant neutropenia. This condition is more serious than the preceding one. It has been recognized as a disease for the past seventeen years, though since 1934 there has apparently been a decline in its incidence. It seems likely that in most instances it follows the administration to susceptible individuals of a drug containing a benzene ring, such as amidopyrine, arsphenamine, or sulfanilamide.

It usually begins rather abruptly with marked prostration, fever, and sore throat. The throat presents a diffuse infection, and often there are one or more areas of ulceration. The exudate may be very extensive and is characterized by a lack of yellow color due to the absence of

pus cells. Occasionally similar areas of ulceration appear on other mucous surfaces, as the nose, vagina or rectum. These lesions may show either streptococci or Vincent's organisms when examined bacteriologically. There is no generalized lymphadenopathy and the spleen is not enlarged.

The diagnosis here also is made by an examination of the blood. There is little or no anemia and the platelets are not affected. The striking finding is a low white count with an extreme decrease or even total disappearance of neutrophilic leucocytes. Counts of 1,000 or less, with less than 5% neutrophils, are common. The cells which are found in the differential smear are nearly all small lymphocytes. No young cells are seen.

The clinical course varies considerably. In uncomplicated cases, the patient either dies or recovers within a period of a week or two. When there are secondary complications such as abscess formation, the recovery, if it occurs at all, may be delayed many weeks.

A condition in some respects similar to malignant neutropenia is aplastic anemia. This term is applied to a group of cases in which there is a depression of all the cells formed in the bone marrow. Some of them are due to the administration to susceptible individuals of drugs like benzene or arsphenamine. Others result from too great exposure to X-rays or radium. Still others have no known cause and are spoken of as the idiopathic type.

Clinically they present a varied picture. Since the red cells, the platelets, and the granular leucocytes are formed in bone marrow, all three are diminished and the symptoms are due to their reduction in number. There is a severe anemia with its attendant pallor, weakness, and dyspnea. The lack of platelets results in purpura, petechiae, and bleeding from gums, nose and vagina. The absolute neutropenia frequently results in an ulceration in the throat similar to that seen in malignant neutropenia.

The prognosis in these cases is serious. If the cause is known and removed, the patient may be kept alive by repeated transfusions until the marrow regains its ability to form cells. The idiopathic type is nearly always fatal.

The last of the blood dyscrasias to be considered here are the acute leucemias. They are the most serious. Clinically

they may begin insidiously or abruptly. The most common early complaints are sore throat, ulcerative stomatitis, and upper respiratory infection. Fully one third of all cases will give a history of a recent tonsillectomy, tooth extraction or other surgical procedure in the oral cavity. Forkner believes that in the myeloid and lymphatic types, there is considerable bleeding from the gums, but rarely ulceration of the throat, while the monocytic type is characterized by marked swelling of the gums and severe ulceration of the pharynx. As a rule the fuso-spirillae of Vincents can be demonstrated in smears from the lesions. In addition the patient exhibits a degree of prostration out of proportion to the severity of the throat lesions. An anemia develops sooner or later in all cases, and purpuric spots appear. In the lymphatic and monocytic type, there is a generalized lymphadenopathy and the spleen is enlarged.

The blood picture is usually easy to recognize. There is an ever increasing anemia, and a thrombocytopenia. The white count frequently is low at the onset, but usually rises as the disease progresses, and in the terminal stage may reach a height of 200,000 or 300,000. The great majority of these cells are frequently undifferentiated blast cells. It is beyond the scope of this paper to go into the differentiation of the different types of the acute leucemias. From a practical viewpoint this is unnecessary for the clinical course is the same in all three types. The prognosis is hopeless, and the disease runs its course within three or four months.

We can thus see that serious and often fatal diseases may have as their presenting symptom an ulcerative throat lesion. As a rule it is impossible to rule out these serious disorders by the appearance of the throat. Likewise, a bacteriological examination does not serve to eliminate the possibility of these conditions. It is necessary to consider the entire picture of the case. It is emphasized that a complete blood study must be done if certain symptoms and signs are found present. These may be listed as follows—generalized lymphadenopathy, petechial hemorrhages, pallor, or marked prostration. If one or more of these symptoms is associated with an ulcerative lesion in the throat the possibility of a blood dyscrasia must be considered. This is particularly true if the patient has been taking any

of the drugs which are known to affect the blood forming centers. It is only after making a study of the blood that a correct diagnosis can be made and proper treatment be instituted.

DISCUSSION

Ernest B. Bradley, Lexington: Some five or six years ago I was unfortunate enough to have six cases of blood dyscrasias, all of which presented the appearance of aplastic anemia. To fulfill the requirements of idiopathic aplastic anemia the disease must prove fatal, so that these cases were not all aplastic anemias, though they could all be diagnosed as such by the diminution in the red blood cells, blood platelets, and polymorphonuclear leucocytes. Of those six, only two died, and they died with the typical hemorrhages that occur in aplastic anemia. The other four are living today. Some of them required transfusions over a period of a year or two. One of them may be a peculiar type of pernicious anemia, although we have never been able to prove it. This is in a young woman that we thought certainly would die within a week or so when she was first taken sick. The picture was that of an acute aplastic anemia. However, she is well today. The point I want to make is that there are certain blood changes that may appear to be aplastic anemia, or other severe types of blood dyscrasias that eventually get well. I don't claim that any of these cases were cured by anything that we did for them, because only supportive measures like transfusions, liver extract, etc., were used. However, it is interesting that in the last eight or ten years many different forms of anemia have been differentiated from the class that we used to call aplastic anemia. No specific name can be given to some of these forms.

Dr. Bach spoke about leukemia. Of course, the acute leukemias are fatal within a very short time or they wouldn't be called acute leukemias, but there are a number of patients with chronic lymphatic leukemias who live for many years.

I have an old negro man who has had chronic lymphatic leukemia for the past six years. It was discovered accidentally when his blood was examined because he had some bladder disturbance. He had pneumonia last winter and was treated with sulfapyridine and recovered from the pneumonia quite promptly. His leukemia doesn't seem to bother him any. He has about 160,000 leucocytes with practically 98 per cent lymphocytes now, as he had six years ago. At that time he received a few X-ray treatments over the spleen, but since then he has had no treatment whatever.

I enjoyed hearing the paper by Dr. Bach, and I felt it shouldn't go entirely undiscussed, even though this is a feeble discussion for the type of paper he has given us.

R. Hays Davis, Louisville: There are two of these conditions that the doctor mentioned that I think are quite important. The fatal ones I shall not discuss at all, but the mononucleosis is a condition that I believe we pick up rather frequently. I know in the past year I have seen four or five of these cases. It is not particularly important except from the standpoint of diagnosis and the satisfaction of knowing why a sore throat hangs on so long, as there is no specific treatment for it, and all of these cases get well. The other condition, however, is of great importance, referring to the malignant leukopenia, as this disease can so easily be overlooked and can be classified as a streptococcic throat, and so many of these cases will die if not treated very promptly.

As the doctor said, they die usually in about a week or two. Formerly the mortality, I believe, was about 85 per cent, but with the specific treatment that is used today, if they are recognized early the mortality has been reduced to about 5 or 10 per cent. I have seen three of these cases in the past two years, and they all got well. The only way to make a diagnosis in this condition is to have a blood count made very early on every type of severe sore throat, and if a decided leukopenia is found, the cells often dropping as low as 1,000, or sometimes even to several hundred, treatment should be begun immediately or they will most probably die.

There is a specific drug for this purpose which is given intramuscularly, and if this drug is used the mortality will be very greatly reduced. The name of the drug is pro-nucleotide. It is extremely important to make blood counts in these cases of apparently severe throat conditions that are apparent infections, so that this condition can be picked up, as it certainly will occur from time to time. It also occurs in certain types of severe infections in other parts of the body.

I know one man who had a metastatic infection of his leg who developed a malignant leukopenia during my absence from the city, but he was very promptly treated by another physician in Louisville and recovered from this condition. I think his white cells had dropped below 1,000 when the blood count was made.

Luther Bach (in closing): In preparing this paper, it was with one thought in mind, not in trying to go into the details in discussing the various diseases which we only touched briefly, but to call the attention of the physicians to the importance of careful blood examination in throat infections, particularly the acute throat infections that are rather stubborn in clearing up. We felt that oftentimes we have all been neglectful and no doubt all of us have made the mistake of overlooking some of the more serious types of infection in the earlier stage.

THE PSYCHIATRIST'S RESPONSIBILITY TO SOCIETY AND THE SO-CALLED CRIMINAL INSANE

THOMAS J. CRICE, M. D.

Louisville

CAUSES OF INSANITY

(1) Hereditary tendencies with mental instability, (2) Alcohol and drugs (3) Syphilis, (4) Brain tumors, (5) Degenerative diseases beyond the age of sixty years.

In the early adolescence we find the hereditary taint, Dementia Praecox classification, together with the constitutional inferiorities and inadequacies. After the second decade of life, we have the alcoholic and drugs, particularly this has been true since abolishing prohibition. Brain tumors are often seen between the ages of fifteen and thirty years.

SEX CRIMES

There has been much talk in the newspapers recently on the question of so-called "sex crimes." We feel that the attitude of the law has much to do with these matters. We are not overlooking the fact that in a broader way, society itself is responsible.

When we arraign the law as contributing to the guilt in these cases, we are referring to the legal statutes as they are now framed. The law has taken little cognizance of what the psychiatrist calls psychoses. There is no question in the mind of the psychiatrist that every one of these crimes is committed by a psychopathological person. An honest psychopathologist who is not influenced by the legal interpretation of what constitutes a psychopathological condition would have no difficulty in selecting those persons who are potentially dangerous to the community and to certain helpless individuals in the community. The law does not seem to be very effectual until some little girl has been raped and murdered by a so-called "degenerate." If the psychopathologist had jurisdiction, these pathological persons could be diagnosed with great accuracy. But this would be of no avail, as the law would not recognize the diagnoses, nor would any steps be taken to correct the situation.

The most dangerous pathological condition is the one known as paranoia. Paranoiacs are always potential murder-

ers, and yet legally it is most difficult to prove a case against a paranoiac. So we have psychiatry developed to a rather exact science, and an obsolete legal situation which grants immunity to the most dangerous of these potential criminals. We do not mean to imply that these sex crimes are committed by paranoiacs, although there is probably a paranoiac-precox strain in most of these persons. Recently, the city of New York has attempted to take measures to protect its inhabitants, but it is about the only place we know of where some effort is being made, and this has been forced by the extraordinary number of these sex crimes which have received publicity. Throughout the country in almost every city there are persons who are molesting small children, both boys and girls. Usually these matters are hushed up on account of the attending publicity and of the difficulty of securing a conviction, and due to the fact that the child is usually called as a witness, which is an added trauma. Heretofore, the law has done more to protect these dangerous members of society, in spite of the fact that they have done an incalculable amount of harm. Most of these sex crimes are hushed up, and only when murder is committed does publicity open them to public inspection. As we are becoming more frank about sex itself and as this matter is now in the foreground, it would be well for the medical profession to put some added pressure on the legislative bodies which frame the laws in order to put the entire matter on a more healthy basis where society would have a chance to be protected by the psychiatrist rather than by the tortuous and fatuous reasoning of the legal profession.

There are three protagonists in law trials in which an alleged insane person is either in the box or at the bar; the judge, the alleged insane person and the doctor. One can look at the problem from all three points of vision. There is an unseen fourth, the public, made articulate by the press.

Our forefathers fought for the recognition of individual rights; Runnymede and Magna Charta, the Bill of Rights, the struggle with the crown, the lopping off the anointed head that bore it, the continuation of that same struggle in America with the victory of the people, the Reform Bill of 1832; the present-day liberties of each of us have been

bought by struggle and by sacrifice. The Great War was in essence a fight for individualism against suppressing organized government, as represented by Prussia. We have had won for us by these efforts of our forefathers, of our brothers and recently of our own, such an individual consciousness, such a respect for individual rights, that we have rather lost sight of the rights of society as a whole. We have been so glamored by our desire to safeguard the liberty of the person that we have become negligent of the safety of the mass.

FAILURE TO PROTECT SOCIETY AGAINST THE MAN OF VIOLENCE

Society, in short, in America has been failing to protect itself against rampant individualism, as expressed by the man of violence. During last year, there were over eleven thousand homicides in this country. That is a fifth of the total loss of the American forces sustained through both natural causes and at the hands of the enemy in nineteen months of first-class modern warfare.

The police force and the law courts are tardy instruments in the apprehension of the perpetrators of the majority of these crimes, but when they have been apprehended, we medical men are often made another brake on the slow wheel of justice, and we abet sentimentality of the press by being asked to testify in and out of season to the lack of responsibility of the criminal. Law is an instrument for the protection of society. It is not a clinic.

Medicine has been in the past century an instrument for the protection of the individual. For twenty-five years, however, our profession has had a new orientation. Our greatest achievements have been in prophylaxis and in the maintenance of sound public health. So, too, in psychiatry, we have to try to procure a prophylactic point of view by examining the heredity and environmental stresses of our insane; to try to comprehend their problems and to aid in their adjustment. But this effort of mental hygiene must not blind us to the fact that in truth we have no knowledge regarding the nature of mind. The issue between Plato and Aristotle, between the Vitalists and the Materialists, between Function and Structure is not yet determined. We do not know whether the mind is a thing dwelling, as the parsons tell us, in the temple of the body or

whether it is the supreme function of the body. We know for certain that it works through the body and is susceptible of change by changes in the body. Mind, I believe myself, is to the body as the function of sight is to the eye. An examination of mind without an examination of the body is the examination of sight without the examination of any of the apparatus for sight; and that is an investigation of visual esthetics but not an examination of sight.

To abolish or mitigate mental and moral ills, we have to do more than the priestly function of individual psychoanalysis. We have somehow or other to try with as much wisdom as our little knowledge gives us to deal with heredity, and we must do something toward the segregation and the prohibition from increase of the proved unfit—and a very important word is “proved.” In the criminal courts, the sentimentality of the public, to some extent the notion of mental hygiene and humanity in the doctor, and a nonwarranted sense of knowledge about things mental and psychiatric in the judge tend to reverse these aims. We are protecting the individual criminal from society, when society has as yet made no plans whereby in the event of release on present charges the criminal may be prevented from antisocial acts in the future. Psychiatry cannot properly work through the existing criminal codes. Justice is diverted by the absurdity of hypothetical questions. Twelve laymen cannot be expected to appraise nicely the degree of responsibility of a paranoiac or a high-grade moron; and the differences of opinion between lawyers and doctors, and doctors and doctors, buttressed, if not directed, by funds from opposed interests, gossiped in the corridors and wrangled in the courts, elevate crime, debase law and prostitute medicine.

RESPONSIBILITY FOR CRIME

The real point at issue in a trial in which the defense is a plea of insanity is not whether it was sufficiently unsound as to be unable to determine right from wrong, or the nature of the act. If not, was the accused a victim of so uncurable an impulse to commit the crime as to ignore the ordinary social inhibitions and be forced thereby heedlessly to jeopardize his own safety?

Irresistible impulse has a place in medicine. It is right that it should have

a place in law. But it is rare in medicine, and I think in the courts still rarer. The definition of “irresistible impulse” as a proper legal plea to acquit an individual of responsibility for an act would seem to me to be, it has been done under the whip of delusion or hallucination or done during absence of consciousness in an automatic state. One may argue that a killer, frenzied with anger, is possessed by an uncurable or even irresistible impulse; my answer is that blind wrath is usually not quite blind and is commonly conquered, and that sudden impulses to slay are more often felt by ordinary persons than they confess to any but their doctors. These emotional vestigial remnants of our past are generally mastered; their existence in us cannot be denied, otherwise we could not possibly overnight make soldiers out of piano-tuners by simply decreeing murder as once again honorable and of good repute. Let me cite the instance of Lord Bramwell, who, when the irresistible impulse plea rose before him, asked, “Would the defendant have taken the umbrella had a policeman been present?” The lawyer’s answer was “No.” “Well,” said Bramwell, “you plead then that the impulse was irresistible in the absence of a policeman.” To many people, the very fact of a crime having been committed had come to be prima facie evidence of the insanity of the criminal (court house insanity). Every crime might be said, and is said, by defending lawyers and often sympathetic laymen to be committed under uncurable impulse. The object of law is surely to compel people who can to control the expression of this impulse.

The whole question of responsibility for crime has been moot between lawyers and medical men. Legal dicta have been incorporated into the body of the law from the time of Lord Erskine, who directed the jury that “to protect a man from punishment there must be such a prostration of intellect that he does not know his own name or condition, surroundings, nor his relation towards others,” to the time of the M’Naghten case in 1843, when it was laid down that “a defendant is punishable if he knew at the time of the crime that he was acting contrary to law and ethics; that for a defense it must be proven that he was so defective in reason as not to know the nature and quality of his act, or if he did know it, he did not know it to be wrong.”

We should, I believe, amend this ruling to indicate the degree of restraint of a criminal impulse of which the accused is judged capable. Nowadays, we have come to the place where calcification of the pineal gland has lately been gravely put forward as a reason why a criminal of some eighteen years should be shown preferential treatment for his murderous acts.

The whole system whereby a defendant employs and pays for medical opinion in the courts is wrong and should be abolished. I can see no reason why a defendant should have any more constitutional right to pick his medical expert than he has to pick the policeman who arrests him or the judge who presides at his trial.

Acquittal on account of a mental disease or semi-mental disease is often a feeble release of wolves to prey on the people and should no longer be tolerated. The following program is surely one for ardent hope:

1. That in all cases of felony or misdemeanor, punishable by prison sentence, the question of responsibility be not submitted to the jury; the jury will thus be called on to determine only that the offense was committed by the defendant.

2. That the disposition and treatment (including punishment) be based on a study of the individual offender by properly qualified and impartial experts cooperating with the courts.

3. That no maximum term be set to any sentence.

4. That no parole or probation be granted without suitable psychiatric examination.

5. That in considering applications for pardons and commutation, careful attention be given to reports of qualified experts.

A sixth recommendation might be included in this program: that there be chosen a panel of qualified medical opinion, if possible from university and major hospital staffs, who would advise the conscience of the court. These physicians would receive adequate remuneration from no private individual or corporation but from the state, and from the state only.

The third provision, that no maximum term be set to any sentence of imprisonment or segregation—call it what you will—is of the highest importance. We cannot pick out of the community morons, slightly feeble-minded persons, constitutional inferiors, mildly psychopathic

and paranoid individuals and arbitrarily incarcerate them. Magna Charta, habeas corpus and the rest of our individual liberties have seen to that. But when such incurable people have proved dangerous by crime, by antisocial actions, then we, as a society, have a right to demand their segregation probably permanently, or greatly prolonged, depending on the nature of their eccentricities and their crimes.

As a community, we are too jealous of the life of the killer, and not thoughtful enough of the life that has been ended, or the family that is left behind. We are sentimental about life and a woolly-minded intelligentsia tries to make us believe that by uplift, moral suasion, movies, gardens, concerts and the latest shows from Broadway we soften thugs and make silk purses out of sows' ears. But Christ said, "By their fruits ye shall know them," and "Does a fig tree bring forth thistles?" and in this scornful question spoke as an aristocrat of intellect and biologic truth.

May I repeat my belief that it must come to pass that doctors of seniority will be chosen for part-time work in the courts, payable by salary from the state, having such experience and prestige that a magistrate of no psychiatric experience would ever think of giving an opinion on a matter of medicine contrary to their opinion; there can be found men of learning and of wisdom, men impartially selected, and working impartially for the state.

FALSE SENSE OF KNOWING

It is a peculiar fact that everybody has an opinion about medicine and things medical. We would not dream, nor would the lawyer dream, nor would the judge dream, if building a bridge, of telling the expert engineer how he should build the bridge, or if the materials out of which the bridge was being built were adequate and likely to reach the conclusion and objection desired. That would seem on the face of it an absurdity, but it does not seem on the face of it to be absurd that opinions should be given on matters of greater and larger difficulty than the appraisal of the modulus of elasticity of a metal. The appraisal of the modulus of electricity of a man is surely the most difficult enterprise to which the human mind can be bent, and it requires not only great experience but great technical experience to be able to reach here a conclusion even moderately successful. This

arbitrament is by law, our common law, left in the hands of twelve laymen, chosen almost at random in the population; the lawyers reared with the sense of the omnipotence and omniscience of twelve good men and true and strong in these matters, so that they take occasion to instruct the simple persons who for thirty years have been dealing with abnormal behavior.

It might be thought that, with society trying to adopt itself biologically to quite new conditions, new conditions for the animal man, new speeds for the same five senses we have always had—and we have an immense impact of stimuli into those five senses owing to their great prolongation, sense by sense—that we would occasionally break and totter in our adaptation. The fact of the enormous number of persons with nervous and mental disease in the hospitals of the country would seem to verify such expectation. It would also seem that we should recognize more quickly than formerly the disordered mind; but this does not always happen, for the intellectually alert person with a serious chip on his shoulder, recognizable by men of experience as a paranoiac type, is often a professional litigant. The paranoiac feels a sense of umbrage at persons in particular and society in general, and he is a persuasive fellow, a turbulent fellow, and he wears his lawyers out, but he impresses his lawyers often by reason of the strength of his own conviction. He carries conviction to them regarding the various abominations that have been put on him. After all, if a man is sincere in what he says, he will always make disciples. If he truly believes that the moon is made of cream cheese and asserts it in declamation in front of this building—if he believes it hard enough—he would be a person of very small personality indeed not to get three disciples before dark. Sincerity, conviction of absolute inner truth, is the thing that molds and influence men—and the paranoiac is the most sincere person in Christendom. Sincerity alone is not virtue; the most sincere people on earth are in asylums for the insane. The sincere individual, under a delusional urge, can succeed in persuading lawyers and judges of his rectitude, his innocence, his martyred state, and often can make those officials believe he is sterling when the doctor in rather tentative fashion, is saying the opposite and getting nowhere at all. Consequently, the paranoiac, under

instruction, is often a successful litigant and is discharged from courts and hospitals prematurely. Regard the outcrop of homicides by patients with a mental history. We are justifiably concerned with the menace to society arising from a legal system which often supports paranoiac litigants and set free paranoiac criminals who, under provocative circumstances, lack self-control.

CONCLUSION

Give the judge and jury the benefit of sound unprejudiced expert opinion to assist them in passing on the question of the defendant's sanity or insanity. But even with the most exact and reliable information available and the wisest counsel, as well as the avoidance of conflicting evidence of alienists, the jury is really not competent to make the decision. To find the fact of guilt or innocence, and no more, should be the function of the court. Disposition and treatment, based on a scientific study, may be recommended by qualified and impartial experts, and yet the jury fail to appreciate their significance. The haphazard method of leaving facts, whose mature and social effects can be comprehended only by specifically trained minds, to the judgment of laymen selected at random must be abandoned. The final decision on facts should be submitted to medical experts, psychiatrists and penologists. The physician should say what shall be done with the mentally unsound defendant.

DISCUSSION

George P. Sprague, Lexington: In studying the criminal and the insane for over fifty years, I yet am often unable to differentiate between the insane who are not criminals and the criminals who are insane, except when I see them in court or learn of their conviction. This is because none of us is normal. This statement is usually received as a joke, but as a matter of fact, mental normality is a comparative term only. We don't say that an ear of corn is normal; there are certain ears that are filled out properly and have a usual length and a good size and texture that we call first-class corn, but no farmer would attempt to say that this ear or that coming within that category is the absolute normal. So it is with human minds. We simply call a mind normal when coming within a space below which we know that the person is feeble-minded or eccentric and above which we know he is a genius, erratic, or an unusual sort of person. But the law probably of necessity requires a fixed definition regarding normality, so that the laws have to be, in

the nature of things, prepared for the great average that we call normal.

Everyone of us has a different appreciation of responsibility. That is seen whenever we stop to think of the other fellow's political party. We know there is something wrong about him for thinking about politics as he does. He is equally sure that we are not quite balanced when we believe in our way. That same lack of uniformity in opinion upon given conditions and given facts permeates all of society, so that often we can't say that this individual who has been arrested is insane, or this individual who may have escaped arrest is normal, but that he happens to have or not to have the qualities that appeal to his judges. Also, when it comes to the jury, we know that the jury have untrained minds, as a rule, and that they are judging perhaps too forcefully on one point of evidence only. As a circuit judge patient of mine once told me about a noted case in his court, he didn't care what the evidence was, he knew the man was guilty. That is the way our judgments, both in and out of the courtroom, are so often made.

I would go further than Dr. Crice has gone and say that the psychiatrist's responsibility is shared by every other member of society. We might modify that a little, perhaps, by recalling that if any of us look over our church membership, our local medical society or our community, we will find that only about five per cent of those belonging to any organization of men are doing its work; probably five per cent of those who are running the world would be rather too high an estimate. So that we have to conclude that the responsibility for law enforcement and for crime prevention, is an exceedingly concentrated responsibility of those who really think.

We are apt to think that each person represents only one of 130,000,000 people, but if the matter under consideration really requires constructive thinking, he represents one of a vastly smaller number than 130,000,000 people. The rest of the population may be compared to the general substance of the brain, which is just structure on which the functioning parts of the brain are carried.

John J. Moren, Louisville: Not being a criminologist or a lawyer, I find it rather difficult to discuss Dr. Crice's paper. I have had practically no experience with the criminal insane, consequently I cannot speak from experience. However, my remarks will be in a general way, and I have one question that I wish to present to the Kentucky State Association.

I think that Dr. Crice's paper has been very timely, especially in view of the fact that Dr. Wilson had a most interesting and constructive paper in the recent issue of the Kentucky State Association JOURNAL. He showed that a number of the cases that were admitted to the

institution were not insane. Dr. Crice comes along with the question of the criminal insane and a lot of those being committed to the institution, and he does not believe in criminal insanity.

There was an eastern doctor who recently visited Louisville. He was a psychiatrist and he was on an inspection tour. I asked him, "Doctor, what per cent of cures do you expect to get in cases of insanity nowadays?"

He said, "Eighty per cent."

Well, I thought about that; I couldn't accept it. Since reading Dr. Wilson's paper and then hearing Dr. Crice raise the question of the criminal not being insane, possibly those two classes furnish some of the prompt recoveries that we have in the state institution that give us this large per cent of recoveries.

In regard to the sex crimes, I happened to notice a very interesting report from New York where they had studied these cases. They took a certain number of cases from the court and investigated those, and they found that only about twenty-five per cent of them could be classed as psychoses, and the leading psychoses in those cases were the alcoholics, and so 75 per cent of those cases were turned back to the court to allow the law to handle them and not considered as fit subjects for the medical men to handle.

They investigated another series of cases that had been confined to penal institutions, and they found a much smaller per cent of those cases that could be regarded as cases of psychoses or cases to be handled by the medical profession. Consequently, from this study, a lot of these so-called sex crimes and criminals are really questions of law than questions in medicine.

This is a message that I wish to bring to the medical profession. We are hearing a great deal about the care of the insane, the care of criminals. We are building elaborate institutions to take care of the increasing number of cases of the insane, the increasing number of criminals. How much is being said about the prevention of those cases? What are we doing to prevent them? Are we going to let them go on this way and increase the number of institutions, increase our taxes and expenses all the time, and not try to stop them? If they expect the state to provide for these cases, isn't it reasonable that our community should try to do something to prevent the development of these cases?

Here is one point that I want to bring out. I am uncertain that the mental hygiene procedures as they are now practiced are not going to prevent. They start too late. I believe that the start should begin early in life, at home, and especially at the time the child is sent to school. Have you ever realized the percentage

of neurotics among our school teachers? They are furnishing the examples. Had you ever thought of that?

J. G. Wilson, Frankfort: To me it is a very timely paper. However, it does seem to me that in this paper and also in the remarks in the discussions, there is a tendency to be not quite as practical as we should, in that although we all recognize that crime and insanity rest upon a common sociological basis, or often upon a common physical cause, we are therefore apt to think that the treatment of the two must be the same, and to excuse the criminal on the ground that he is probably abnormal.

I liked Dr. Crice's term "courthouse insanity." There is too much of this "courthouse insanity." There is no more reason for invariably treating the person who has committed a criminal act as if he were insane than there is of considering paresis and syphilitic orchitis as requiring the same kind of treatment simply because they rest upon the same common cause.

In Kentucky as well as every place else, as soon as your intimate friend John Doe gets in trouble, you say, "John Doe couldn't have done this unless he were crazy." You forget that perhaps John Doe got caught doing something that he was always doing, or something that he was always willing to do, and then you are willing to find an excuse for him on the ground that he must have been mentally abnormal. Of course crime is a mental abnormality just as any kind of sin is if you want to consider it that way, but when it comes to treatment you certainly must draw these distinctions.

I should like to make an appeal to those of you who serve on lunacy commissions not to listen too readily to the plea of the friend of the person who is summoned for a lunacy inquest, to the effect that that man is crazy when the probabilities are that he was just only plain drunk.

Of course it would be wonderful if we could have institutions that were so organized that they could take care of all these various grades of abnormalities and sins of various kinds that are not against the law, as well as misdemeanors and felonies, and the insane, psycho-neurotics and hysterics all in one common group under one great administrative head, and all institutionalized—it sounds beautiful but it is totally impractical, and in the meantime let's keep our feet on the ground and recognize that the lawyers after all have more than a modicum of truth in stating that you must consider the act that the person committed as an indication of his character as well as the deeper motivations discovered by the psychiatrist and the psychologist.

Thomas J. Crice (in closing): Dr. Moren touched on a very interesting point about the origin of the mental unfit. He used to tell a story, you all have heard it, that often when he visited Lakeland Asylum, he would ask the late Dr. Pusey what was the cause of insanity, and Dr. Pusey told him every time, "If you will come out visiting days, Doctor, I will show you the causes of insanity."

I wish to refer to the law. When the law gets mixed up with the doctor, especially with the psychiatrist, the two don't work together. The law states that a patient should be recognized both insane and idiotic in order to be of an unsound mind. That is the law. It doesn't recognize any classification, and doesn't care for any explanation.

In regard to the jury system, I think it is most obsolete, old-fashioned, and worn-out. The jurors are good men, as I stated in my paper, drawn from the various walks of life, but they don't know anything about psychoses, they have had no training, and it is difficult to talk to those men so that they can understand in simple terms in our criminal courts. Therefore, why should they in their ignorance pass upon the sanity or the insanity of the person in question? It seems to me that a psychiatric court could be set up to work systematically and scientifically. In this State the person who is supposed to be psychotic is served with a warrant. Isn't it pathetic to serve a person with a warrant because he has some mental trouble? Suppose you have appendicitis or gallbladder trouble or rectal trouble, would you like to have a warrant served on you because of that? I shouldn't think so.

I again want to thank the gentlemen for their kind discussion of my paper.

Dextrose Tolerance Test in Recurrent Infectious Intertrigo.—Carpenter suggests that the carbohydrate metabolism should be determined in any person who has a chronic relapsing of intertrigo so that if there is any defect it will be known. A simple test for blood sugar is not sufficient, for it may be within normal bounds. Campbell in studying sugar metabolism of patients with pruritus, outlined a form of dextrose tolerance test which would indicate an abnormally delayed assimilation of carbohydrates. He gave orally 100 Gm. of dextrose on an empty stomach, and then took blood sugar readings one-half, one, two and two and a half hours after its administration. If the average result of these tests is more than 120 mg. per hundred cubic centimeters, he considers that an abnormal delay is present and that carbohydrate dietary restrictions should be enforced.

INTRAPLEURAL PNEUMOLYSIS

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Intrapleural pneumolysis consists of severing adhesions in the chest cavity. It is a relatively new procedure to secure physiological rest for the diseased lung. From the earliest time all measures used in the treatment of pulmonary tuberculosis have been directed toward this end. Bed rest and restricted physical activity, important parts in any sanatorium regime, pneumothorax, phrenic nerve analysis, thoracoplasty and other surgical measures all have this design. Each procedure done alone or in conjunction with others is planned to meet more or less definite indications in the individual case. Bed rest, wholesome food, and invigorating climate, one of the first routines established was beneficial in a certain percentage of cases but the persistence of the disease in many of the cases with progression, cavitation, or spread with bilateral involvement soon convinced the profession of the need of additional measures.

Forlanini in 1882 encouraged by the reports of experimental work and some benefit resulting from spontaneous pneumothorax in man proposed artificial pneumothorax with the hope of obtaining compression of the diseased lung, collapse of cavities and ultimately healing. A number of years were required for the development of this new plan. The effect and merit of various gases was tested, the mechanical equipment was perfected, the hazards and complications were soon experienced, the limits of the procedure were in time faintly delineated and finally the patients were encouraged to accept this new form of treatment. Within the 57 years since the introduction of pneumothorax its use has met with increasing favor until now approximately 30 to 50% of all patients in sanatoria receive it. In expert hands it is easily administered, is accompanied by a slight risk, and can be discontinued at any desired time to allow re-expansion of the lung in the great majority of the uncomplicated cases.

Artificial pneumothorax has proven to be one of the most valuable methods of collapse therapy, but all who are familiar with its use know that it, too, has its

limitations. The effectiveness of any pneumothorax, as is well known, depends upon the degree to which the lesion can be compressed. Alexander says that in approximately 20% of all cases in which it is attempted oblitative pleuritis prevents the introduction of any air and in from 40 to 50% in which it can be used adhesions prevent a satisfactory collapse. This state of affairs soon made it evident that it was necessary to find some means of eliminating intrapleural adhesions if pneumothorax was to be used to its best advantage.

Everyone has viewed roentgenograms of the chest showing various degrees to a maximal collapse of a tuberculous lung and have seen cavities which remained opened. This type of pneumothorax case represents the ones in whom additional measures must be applied. Positive intrapleural pressure is condemned. Phrenic paralysis gives a minimal effect. The cavities are often hanging suspended by definite bands or adhesions, which appear like the guy wires or supporting struts from a central tent pole. They give one the feeling that if they were severed the lung would collapse in a heap. An ineffective pneumothorax caused by such pleuritic adhesions is the common experience of all who use artificial pneumothorax. Heretofore in the face of this interference with a satisfactory collapse a certain hopeful attitude has been maintained and too often pneumothorax has been continued for many months after its uselessness was definitely established. In such instances the disease too frequently extended to the other lung, the larynx, the gastro-intestinal tract and other parts of the body.

Jacobeus was visionary enough to conceive a method of intrapleural section of adhesions in the cases in which they prevented collapse. His early experience and results were somewhat discouraging but not unlike the usual setbacks that await any pioneer. Many others have since united in perfecting his instrument for thoracoscopic observation and surgery.

The need for additional measures for cavities which resist pneumothorax compression is tragically revealed when one studies the life expectancy of any large series of such cases. Coryllos quotes Nissen's experience, who said, "Without operation out of a 100 patients with caseous pneumonic tuberculosis (cavitation) in which pneumothorax was not effective,

50% died within a year, 30% more within 2 years, 10% more within 3 years and only 10% survived over 4 years." A similar experience of Barnes and Barnes was revealed in a study of 1,465 cases with cavitation. The average span of life was 15.8 months and 80% died within the first year. The urgent need for supplementary treatment in such cases is obvious.

The problem is now best met in one of three ways. First, by thoracoplasty, which offers from 75% to 85% cure, second open pneumolysis, and third, by closed or intrapleural pneumolysis. Thoracoplasty is an irrevocable procedure, permanently comprises the collapsed lung and has a higher primary mortality. The open pneumolysis method or section of adhesions after thoracotomy is a dangerous procedure in tuberculous patients. Thoracotomy for tumor of the lung is harmless because the pleura is healthy. On the contrary, in patients with tuberculosis, the pleura is frequently diseased, healing may be retarded, and fistulae may develop with tuberculous or mixed empyema. Closed or intrapleural pneumolysis, on the other hand, is gaining in favor. There is no doubt that in well selected cases where the adhesions are thin, avascular, and sufficiently long to allow for the safe manipulation of the thoracoscope without undue exposure to the dangers of hemorrhage, injury of the lung with fistula, spontaneous pneumothorax and empyema, this method is of great value.

Matson claims that intrapleural pneumolysis under thoracoscopic guidance will convert 70% of the unsatisfactory type of pneumothorax into satisfactory ones. Those who oppose this management will rightfully remind you that pneumolysis is not an end in itself but must be supported by a continuation of the pneumothorax which is not entirely without risk. But even considering the hazards of the complications subsequent to refills it is probable that pneumolysis is more desirable, when it can be done, than thoracoplasty. This last procedure can still be held in reserve.

Fluoroscopic investigation and a careful study of the stereoscopic roentgenograms should precede surgery in every case. The location and type of adhesions can be determined with some degree of accuracy as well as the character of the cavities, their proximity to adhesions and the possible influence of the latter in the

persistence of the cavities. Of equally great value one can see the degree of pneumothorax, and its possible selective distribution. The prime safety of thoracoscopic examination depends upon sufficient free space in which to manipulate the instrument. The true character of the adhesions, their influence on the state of pulmonary collapse, their availability for cutting, and the condition of the pleura rests with the actual picture as seen only upon intrapleural observation. It is surprising how frequently the number and thickness of adhesions, as determined by the other means, is underestimated.

Some of the adhesions are thin, gossamer-like, under little or no tension and consequently exert slight inhibitory influence on cavity collapse. Large bands may present themselves and may be seen to extend in a shelf or sheet-like fashion from the chest wall or major vessels. This type of adhesion may not have been anticipated from the roentgenological study for it was probably viewed on edge and appeared as a thin, narrow, harmless band. There are some very long, large, and rounded bands which vibrate with each respiratory excursion of the lung and become tense on expiration. This type of adhesion definitely suspends the lung and prevents its collapse. Bands may flare at either end with wide attachments to the lung and chest wall. These are likely to be short, may contain lung tissue or even the projection of a cavity.

Adhesions may be so varied in character as to defy description and so numerous as to obstruct any direct attack on their disruption. At times the picture is similar to a thick and closely grown forest. Not infrequently the roentgenograms will be interpreted as a most desirable case for intrapleural pneumolysis but the endothoracic examination will show the lung fused to the chest wall. This particular condition cannot be relieved by this method. Attempts to separate the adherent visceral and parietal pleura, in such cases, are likely to result in tears of the lung with its attendant complications, namely, emphysema, spontaneous pneumothorax, broncho-pleural fistula, tuberculous or mixed empyema or hemorrhage.

For the intrapleural severance, disruption, or cutting of adhesions there have appeared several instruments since the original one of Jacobeus. Each modifica-

tion has been developed in an effort to circumvent some particular difficult technical situation, to afford better observation, assure more accurate knowledge of the proximity of cavities to adhesions, to give greater operative range and flexibility, to safeguard against hemorrhage, to lend protection to the major nerve and vascular trunks; all for the purpose of reducing to a minimum complication which may mean disaster in these patients.

There are two general types of instruments for closed intrapleural pneumolysis. One, a thoracoscope and galvanocautery with a separate cannula for each unit as it is introduced into the chest at different intercostal spaces, and the other a single cannula instrument which is designed to carry a thoracoscope and high frequency electrode combined. Without elaborating all the advantages of the respective methods a few of the most popular considerations may be briefly discussed as a matter of interest. Those who use the two cannula method, as first advocated by Jacobeus, claim greater range of observation; a wider operative field, particularly when the separate parts are interchangeable in the cannulas, and added safety with the galvanocautery. The combined instrument as represented by the Cutler instrument carries the thoracoscope and operative unit in one cannula and uses the high frequency current. There is considerable less magnification and lighting power with this unit. There is, however, a separate observation unit without this reduction which is used for a complete thoracoscopic examination before severance of the adhesions is undertaken. The disadvantages of each type of instrument are likely to be reduced when one has become familiar with its use. There are claims of greater safety in controlling hemorrhage with the high frequency current. Hemostasis can usually be first obtained by coagulating the tissue before applying the cutting current. Most patients will remain comfortable for 1 or 2 hours and this length of time is usually sufficient for the severance of the offending adhesions. If there are no contraindications it is advisable to cut all bands, however, satisfactory results may be obtained short of this. For one reason or another the procedure may be interrupted before it is carried to a successful end. A second intrapleural invasion may be safely undertaken in a few

weeks to complete the work or to sever adhesions overlooked at the first operation.

At present there are several well defined and accepted indications for the operation: (1) an ineffectual collapse after due trial with pneumothorax; in the average case pneumolysis should not be attempted until 3 or 4 months after the induction of pneumothorax. (2) Hanging or suspended cavities, these yield slowly to air compression and are more prone to bronchogenic spread; these cases and severe hemoptysis may demand early intervention. (3) Heavily infiltrated areas without cavities but with persistently positive sputum should be similarly treated after an adequate trial at pneumothorax. (4) The pressure of refills may provoke excessive coughing, pain, and discomfort of sufficient severity to justify the operation. (5) Tuberculous empyema may actually be benefited.

There likewise are contraindications which may be considered as such or as hazards of the operation. (1) To be avoided are cavities which extend into the base of adhesions. (2) Second, are adhesions containing lung tissue, since herein lies the danger of fistulae, spontaneous pneumothorax, empyema, and hemorrhage. (3) Short adhesions attached to great vessels for obvious reasons are to go untouched. (4) Fused visceral and parietal pleura with all the potential complications enumerated under (2) definitely contradict surgical relief. (5) Acute pleurisy with either serous or purulent fluid is a valid contraindication but successful operations can be anticipated in chronic afebrile cases with nonpyogenic effusion, provided the adhesions are not covered with fibrin and can be clearly seen.

These patients have grown used to the slight discomfort of a needle puncture incident to their frequent pneumothorax refills and consequently are prepared and willing to accept the attending associated mild distress of uncomplicated intrapleural pneumolysis under local anesthesia. Apprehension, nervousness, and pain may be allayed by pre-operative administration of one of the barbiturates an hour before and morphia one-half hour before the scheduled time of operation. These measures prevent deep and forced breathing, and control the cough reflex, thereby safeguarding against forcing the intrapleural air into the soft tissues of

the chest wall or the tearing of adhesions while they are being severed. The incidence of emphysema, hemorrhage, spontaneous pneumothorax and dreaded empyema are thus minimized. In seeking this ideal state of sedation, however, one must be careful to avoid excessive medication which may eliminate the cough reflex for hours and allow for the puddling of secretions and a bronchogenic spread of the infection. It is an additional precaution to have these patients thoroughly rid themselves of all sputum approximately an hour before the time for operation.

A small incision is made through the skin in the intercostal space previously selected, after roentgenological study, as being the most advantageous or accessible to the adhesions. The trochar is directed upwards to avoid the intercostal vessels and with slight pressure can be made to enter the pleural cavity. The obturator is replaced by the observation unit of the thoracoscope and a careful and thorough inspection is begun. Adhesions are scrutinized for large blood vessels, their proximity to cavities with the thought of possible extension into their base, their physical characteristics and influence in preventing an effective collapse. The mediasinal structures, nerves, large vessels, and the dome should be carefully noted. Only when this survey and appraisal have been made are you prepared to undertake the severance of the adhesions. The procedure may be rapidly completed or require 1 or 2 hours, depending upon the number to be cut and the ease with which they can be approached. They are secured as far from the lung as possible, coagulated and then interrupted with the high frequency cutting. Both ends of the severed adhesions should be checked for bleeding before carrying on to new fields. It may become necessary from time to time to check the intrapleural pressure and increase the volume of the pneumothorax if there is an escape of air through the cannula during the exchange of the observation and operative units. When the operation is finished a final observation of the thoracic cavity should be made to be certain of complete hemostasis. As soon as the trochar is withdrawn pressure is applied, with a finger, over the opening in the chest wall until it can be permanently closed with an interrupted suture.

At the Julius Marks Sanatorium, in Lexington, with an average bed capacity of 94 we have increased our introduction of pneumothorax within the last 5 years from 34 to over 50% of the cases. In this series, of course, we have had our share of incomplete collapse and have met with the usual complications. Intrapleural pneumolysis has been added the last year as a therapeutic measure and has enabled us to salvage some of the unsatisfactory collapse cases. There were 122 patients, or approximately 51% of the total hospital admissions who received artificial pneumothorax, and 7 of these were bilateral pneumothorax. For reasons to be elaborated treatment in time was discontinued in 58 cases. In 10 the disease was arrested, in 27 others there was marked improvement, in 16 there was no evident benefit, and in the remaining 5 cases the treatment was discontinued in the presence of added hazards. On June the 30th, 1939, there were 64 patients receiving pneumothorax, 30 of these were in the sanatorium, and 34 were out patients. 32% of all of our pneumothorax cases had at some time various amounts of fluid in the pleural space.

Most of the cases of unsuccessful collapse could be attributed to the presence of adhesions. In the last year there were 19 such cases and they were referred for intrapleural pneumolysis. In 4 of these the operation was a failure; the visceral and parietal pleura were fused in 1, adhesions were too dense and vascular in 2, and fatal postoperative hemorrhage nullified an otherwise satisfactory operation in the remaining one. In the 15 cases in which the procedure could be completed the final results were good. These results were probably more significant when we consider the associated factors. There was active tuberculosis in the opposite lung of 12 of the 19. Phrenic paralysis was done on 7 of these. Clear fluid was present in 3 before operation and in 2 additional ones after operation. Apart from these there were 2 purulent effusions. This complication, which occurred more frequently 2 to 4 weeks after the operation was satisfactorily handled in each case. There were no wound infections. Emphysema of the soft tissues of the chest wall and even the neck occurred in 4 patients, but subsided in a few days and gave no trouble. Slight hemorrhage resulted from the cut ends of the adhe-

sions in several cases, but was easily controlled excepting in one case. Bleeding was rather free in this patient from a large vessel in an adhesion. A thoracotomy was required to control the hemorrhage but the patient died the next day. With the exception of the effusions which were easily controlled and the emphysema which gave no ill effect we considered the final results in the fifteen cases or approximately 78% of the cases subjected to pneumolysis as good, however, 1 of the cases required a thoracoplasty on the other side and still another case is under consideration for the same procedure but in both the contralateral disease was present before pneumolysis, and did not represent a spread.

SUMMARY

1. In presenting this paper on intrapleural pneumolysis our chief aim was to bring to your attention a relatively new procedure, which enables one to sever adhesions and thereby to convert an unsatisfactory into a complete pneumothorax collapse.

2. The measure is not without elements of danger nor free from complications, but the benefits derived from a well executed operation outweigh the disadvantages.

3. When one follows the course of untreated and uncollapsed cavities the extremely poor prognosis prompts one to utilize every available means to bring the disease under control.

4. Our satisfactory results the last year in 78% of the cases subjected to intrapleural pneumolysis at the Julius Marks Sanatorium make us willing to accept this new procedure as of great value.

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DISCUSSION

Oscar O. Miller, Louisville: Mr. President, Distinguished Guest, and Gentlemen: This is an unusually interesting paper and it certainly

impresses one with the idea that the control of tuberculosis is gradually being worked out by reason of young men becoming familiar with the methods to arrest the process. It must give the men in Lexington and the surrounding country a good deal of comfort to know that their cases of artificial pneumothorax in which they are not getting an adequate collapse can have this method applied.

I don't think it is necessary to apply intrapleural pneumolysis in all cases that have adhesions. I still think that many of those cavities can be collapsed even by relatively high pressures and in many cases where the apex of the lung is adherent and the base is adherent to the diaphragm their cavities can be closed by the expedient of a phrenophraxis on that side. Not infrequently cavities can also be closed when one uses postural rest in addition to pneumothorax; that is by elevating the foot of the bed fourteen inches and permitting a rise in the diaphragm to supplement the pneumothorax. Naturally with a high tension pressure the diaphragm is compressed into the abdominal cavity and posture will not help in those cases.

Many of these cases develop fluid following intrapleural pneumolysis, which is not a severe complication. In Wells' 141 cases, 21 per cent of them had fluid to begin with, and another 25 per cent developed fluid in those cases. He secured 87 per cent closure of cavities where he had used intrapleural pneumolysis.

Naturally it is necessary that there be sufficient pneumothorax to enable the operator to work in that field. Some of these cases have so many adhesions that it is not practical to sever them. Ten per cent of the cases are not satisfactory for severing adhesions when the operator gets in there.

Hemorrhage in this operation is a very alarming and dramatic accident, and it has occurred even with the very best operators. Norman Bethune at Montreal sought to overcome this difficulty by using Cushing's silver clamps, and he developed a thoracoscope through which he could operate and place these silver clamps on the adhesions which contained blood vessels and then cut them with a pair of specially designed scissors. He had used this in two cases, but does not recommend it as a universal procedure, only in that type of adhesion that Dr. Grimes spoke of containing blood vessels that were not amenable to this operation.

Fisher at Waverly Hill and Wells at Saranac Lake found there was less tendency to hemorrhage if they used what was known as the cold cautery rather than the cherry red.

I think age is a factor which would influence one in selecting this operation. A man who is fifty or fifty-five years of age, even though he may have a positive sputum, perhaps would be content to go along if he had reasonably good health and was symptom free. In many of these cases the pneumothorax is going to be carried on indefinitely. We don't know just what sputum conversion is. We resort to the smear and say the sputum is negative. But if you take that same sputum and cultivate it on Lowenstein's media you will be amazed at the number of positive cases you will get that were thought to be negative.

There is no definite standard yet as to what is conversion of sputum, and I am not certain myself that even in normal individuals we may not excrete bacilli from time to time.

I don't quite agree with the doctor when he says sever the adhesions where there is a massive infiltration and the sputum is positive. We must not overlook the fact that quite a number of patients have a tuberculosis tracheobronchitis with ulceration and profuse expectoration in the presence of a very adequate pneumothorax and in a case where I had a positive sputum and a fairly good collapse I would want to have that patient bronchoscoped first to determine whether there was a tracheobronchial ulceration. If not, then one could consider some of these other operative procedures.

Louis Hamman, Baltimore: Always having had a deep interest in diseases of the lungs, I have followed the development of this method of treatment since the early attempts of Jacobus, but I have had no personal experience with it and therefore I can add nothing to what Dr. Grimes has said. I think he has given a most satisfactory review of the whole situation. It is a matter of great importance that physicians should be familiar with this method, although I cannot conceive that they themselves will ever be called upon to decide whether it should be used or to use it themselves. It is a very special method and it requires special skill and experience to decide when the method should be used, and of course very special skill and training to use the method satisfactorily. I can only say that I think the profession hereabouts is to be congratulated that one of their associates has taken the time and the pains to develop expertness in the technic of this operation. It is used only on relatively few occasions, and yet, as Dr. Grimes has pointed out, on these particular occasions it is of very great value.

L. W. Nehil, Louisville: I want to congratulate Dr. Grimes on the very excellent work he

is doing at the Julius Marks Sanatorium. The procedure known as intrapleural pneumolysis can be used in about 20% of cases who are receiving pneumothorax and in whom the collapse is not sufficient because of adhesions. In those cases in which it is employed it is successful in about 75%. He suggested that you should wait three to four months before attempting the operation. I don't believe you should wait longer than a week or two. If you feel that the case is going to need the adhesions cut it should be done immediately because the longer you wait the more difficult the procedure is going to be. They don't lengthen, they don't stretch; they thicken, become fibrous and tough. It converts a simple operation into a difficult one.

I also would like to say that hemorrhage is not an important complication. It happens occasionally but is seldom fatal. I attended a meeting at Saranac Lake at which the late Hans Jacobus was present and he recited his experiences. I think he had six or seven hundred cases and among those cases he had only two hemorrhages, neither of which was fatal. When cutting adhesions you often get some dripping of blood but seldom a severe hemorrhage.

The incidence of empyema following this operation is also minimal. Dr. Thrash at the University of Virginia reported a series of well over two hundred cases using the same technic that Dr. Grimes employs and they had about 2½% tuberculosis empyemas following their operations which is less than the incidence of tuberculous empyema in pneumothorax as a whole.

I would like to make a plea for the use of this procedure early. The indications can be summarized in one sentence and that is, if adhesions are present they should be cut. This is true even tho the sputum may be negative, because if you have ever fluoroscoped your patient and have seen the continual tugging at the site of the disease (Adhesions usually form over the diseased area), the lung is never completely relaxed and that is why you instituted the pneumothorax. Therefore, if you expect to put the lung at complete relaxation the adhesions must be severed. It is a simple procedure with few complications.

Misch Casper, Louisville: I would like to ask if in doing a bilateral operation of pneumothorax you have any metabolic changes or symptoms in the patient from lack of oxygenation.

I also want to say that we ought to be thankful for this balanced program. We ought to be very proud of the essayists and the discussants.

Paul Turner, Louisville: I want to stress one or two things. First is, the operation needs a certain amount of space in which to handle your instruments. I want to mention that because patients come into the sanatorium every now and then and ask if they can have their adhesions cut before they even have had a pneumothorax done. Of course the operation needs a pneumothorax before it is even attempted.

I quite agree with Dr. Nehil in his remarks about the time of operation. We discussed this matter somewhat over a year ago and we were thoroughly agreed that the earlier you can do the operation the better off you are. Since that time I have been doing my operations very much earlier and in the last 100 that I have had I think that most of them have been done within a period of two months anyway. All the stretching of the adhesions is accomplished by that time. They are much tenderer, they cut easier, there is less danger of hemorrhage, and we get along very much more nicely in cutting the adhesions early rather than wait four or five months before attempting the operation. It is the same principle—for which one does pneumothorax—you have a cavity and you want to close it as fast as possible.

One thing more. Diseased lung tissue that is held out by an adhesion is not at rest. If you will look at the lung by fluoroscopy you will see it moving excessively. If the adhesion is cut the lung is put at rest.

Allen E. Grimes (in closing): First I want to thank you all for your most interesting discussion.

I prepared this paper more with the idea of calling to the attention of the general practitioner the usefulness of this supplementary operative procedure. By necessity there were many details omitted in such a presentation. I had hoped, however, to arouse the interest and provoke the comments of men who devote the major part of their time to the treatment of tuberculosis patients. The remarks that you have heard from my commentators have brought out a number of most valuable points and added to the completeness of this topic.

Hyperfunction of Posterior Lobe of Pituitary.

—The similarity between the condition of the patient in the preceding abstract and that which could be produced in animals suggested to Noble and his collaborators that it would be of interest to determine whether the vasopressive principle could be obtained from the patient's blood or urine. Specimens of blood and urine were collected in May and July. An extract containing pressor and anti diuretic activity has been obtained from the urine, suggesting hyper function of the posterior pituitary. The effects of this extract are similar to those produced by the pressor principle of pituitary preparations.

MODERN MANAGEMENT OF

RECTAL FISTULA

RUFUS C. ALLEY, M.D.

Lexington

Rectal fistulae are pathologic sinus tracts and are invariably preceded by abscess formation. Proctologists generally agree that most rectal abscesses originate in diseased anal crypts of Morgagni, the cryptic infection burrowing through the bowel wall and producing an abscess in nearby cellular tissue. When the abscess is opened surgically, or ruptures spontaneously, a fistula is formed. Occasionally the abscess will undergo spontaneous rupture back into the crypt from which it originated producing an internal sinus or blind fistula.

Other less frequent causes of rectal abscesses and fistulae are (1) trauma, as from perforations by foreign bodies, (2) chemical, sometimes following improper injection of sclerosing solutions for hemorrhoids, (3) osteomyelitis of coccyx or pelvic bones, and (4) carcinoma.

The micro-organisms causing abscesses are most frequently *B. coli*, *staphylococcus* and *streptococcus*. Usually a mixture of these bacteria is present; rarely a pure culture of single organism can be obtained. Infrequently the pneumococcus, gonococcus, actinomycetes, typhoid bacillus, dysentery bacillus or tubercle bacillus may be causative organisms.

Rectal fistulae may be simple, complex or complicated, depending upon the existence of collateral sinus tracts or upon fistulous communication with a nearby viscus.

The symptoms of a fistula are characteristic. At the onset a painful perirectal abscess develops. This abscess either ruptures spontaneously or is lanced to evacuate the pus. Drainage may continue indefinitely or, as is more common, the external fistulous opening may heal only to be followed, after weeks or months, by another abscess. The drainage is usually foul smelling and irritating. Occasionally the passage of flatus or even feces through the fistulous opening may be observed. Pain is present during the abscess stage; after the fistula has become established soreness and irritation are more usual complaints.

Non-surgical treatment of fistula has been given a thorough trial. The method

Read before Fayette County Medical Society, October 10, 1939.

that seemed most promising was the injection into the fistula of chemicals for the purpose of destroying unhealthy granulations and to produce fibrosis and obliteration of the sinus tract. A variety of substances have been used, among them 95% phenol, saturated solution potassium permanganate, saturated solution silver nitrate, tincture iodine, 10% zinc chloride, etc. This method of treatment has practically been abandoned; not only is it unsatisfactory but it is painful and there is danger of tissue necrosis.

Surgery is required for the cure of rectal fistula. It is essential that the operator be minutely familiar with ano-rectal anatomy, physiology and pathology. A thorough knowledge of wound healing and reactions is necessary. Successful fistula surgery is based upon the concepts that (1) the internal opening in the bowel must be found and extirpated (2) all sinus tracts must be opened adequately, and (3) the wound must heal solidly from the bottom. Failure to fulfill any one of these requirements will result in an unsatisfactory operation.

It is sometimes necessary to partly or completely divide the sphincter muscle. This can be done without fear of incontinence if the muscle is divided at right angles to its fibers and if the perirectal wound is not too large. If the sphincter is cut twice at one time incontinence will surely follow.

Postoperative care is as important as the operation. The wound must be kept clean by irrigations and frequent change of dressings. It must be made to heal from the bottom so that a healthy, smooth scar results. This requires meticulous daily attention until the wound has healed.

It has been shown that tuberculosis is a factor in only 3% to 5% of all fistulae. In most fistulae which show tuberculous inflammation the specific infection has become engrafted upon a pyogenic fistula, the tubercle bacilli reaching the rectum by means of swallowed sputum. A tuberculous fistula can usually be operated upon satisfactorily provided the patient's general condition is good. The wound may require a little longer to heal but with patient, persistent care a good result may be expected.

SUMMARY

Rectal fistula is a surgical disease. Proper operation and proper postoperative care will produce cure in nearly 100% of cases.

AN IMMEDIATE PROGNOSTIC SIGN OF A SMALLPOX "TAKE"

ROBERT COHEN, M. D.

Louisville

The average physician after vaccinating his patient for smallpox requests him to return in 5 to 10 days to verify his "take." Occasionally an alert physician may prognosticate the "take" soon as he has finished the vaccination procedure if he has meticulously noted his technique.

I have been able to prognosticate the last 250 cases of smallpox vaccination which I have done 100% accurate.

I have had the honor to have worked with Dr. M. L. Blatt, chief of the staff of St. Vincent's Infant and Maternity Hospital (Official Chicago Infant Asylum) in the capacity of resident pediatrician. While there I became familiar with his strict iron clad routine for smallpox vaccination. The results revealed that seldom was it necessary for a child to be subjected to a second vaccination procedure. Each box of vaccine had its serial number and government number copied on the child's individual chart to guard against possible contaminated batch or source of encephalitic possibilities. The vaccine virus was always refrigerated and never allowed to get warm or remain at room temperature. If it did the batch was destroyed.

The technique used and which I follow in private practice is as follows: The skin site is cleansed with acetone then followed by a cleansing with 95% alcohol. After the skin is dry the virus is dropped onto the skin which is held firm and tense between the thumb and index finger and the operator's hand. Thirty multiple pressure movements are then made through the drop of virus. The drop is allowed to remain a minimum of three minutes—better still is four minutes—before being wiped off. The vaccine virus is wiped off with a cotton sponge containing a small amount of 50% alcohol. No blood drawing or scratching is attempted. It is at the end of the last alcohol wiping that the prognostic sign becomes evident so a "take" can be assured. A raised urticarial like wheal of pseudopod not always with an erythema base is present. Often it is larger than the area traumatized. I have recorded this wheal in my notebook in 250 cases and they all later showed a positive "take." These observations were carried through my experiences at the Cook County Contagious Unit while under Dr. A. Hoyne's service and in my private practice.

book of medicine. However Von Pirquet, had noted this original sign but not to prognosticate a "take." He stated that it was the result of mechanical irritation of the skin "traumatic reaction." The site of vaccination after a few minutes appears red and on stretching the skin somewhat faded in the centre. As in urticaria the prominence of the wheal depending on the sensitiveness of the skin.

However I carried my observations further and state that the wheal heralds the take of smallpox by its lymphaticodermal reaction. The absence of a wheal is the absence of a take.

CONCLUSION

The appearance of a wheal immediately after wiping off the vaccine virus of smallpox in the vaccination process heralds or prognosticates its "take."

BOOK REVIEWS

MEDICOLEGAL PHASES OF OCCUPATIONAL DISEASES, by C. O. Sappington, M. D., Dr. P. H. An Outline of Theory and Practice—presenting, in handbook form, the Industrial, Insurance, Medical, and legal inter-relations of all the elements of Occupational Diseases, from Origins and Causes, to Disabilities and Costs. 400 pages; 5¾ x 7¾; bound in cloth (or semi-flexible, as preferred). Price \$2.75 (cloth). Published, 1939, by Industrial Health Book Company, 540 North Michigan Avenue, Chicago, Illinois.

This book is particularly opportune, as industrial health, industrial hygiene, industrial medicine and occupational diseases are being stressed at the present time and involve numerous difficult problems. As the author says in the preface: "Although growing emphasis placed on the problems involved in occupational diseases has given great impetus to the study of causes, clinical manifestations, laboratory findings, and control measures, the lack of use of these methods and the misuse of information resulting from them, still present difficulties. The chief sources of such difficulties arise from a lack of true appreciation of the necessity of establishing definite cause - and - effect relationships between employment, disease, and disability, and the common mistake of permitting the error in reasoning which Kant so memorably expressed as 'Post hoc ergo propter hoc' ('After this, therefore on account of this')."

Because of this book, its author received the award at the 24th annual meeting of the American Association of Industrial Physicians and Surgeons at Cleveland, 1939.

TEXT BOOK OF NERVOUS DISEASES—By Robert Bing, Professor of Neurology, Uni-

versity of Basel, Switzerland. Translated and amplified by Webb Haymaker, Assistant Clinical Professor of Neurology and Lecturer in Neuro-Anatomy, University of California, New Fifth Edition, 825 pages, 207 illustrations, including 7 in colors, price \$10.00. C. V. Mosby Company, Publishers, St. Louis, Mo.

In the translation of this book Dr. Haymaker called to his assistance many outstanding neurologists in America as consulting editors who made suggestions for corrections in various chapters dealing with special disorders of the nervous system. The result has been an almost perfect translation conveying the opinions of the world's greatest neurologists.

Emphasis has been placed in this book upon the etiology and pathological physiology of diseases, rather than upon their topography and pathological anatomy. Repetition has been avoided by grouping together **all the syphilitic diseases**, by dealing with the disturbances in the conductivity of the peripheral nerves as a unit, by a clinical synthesis of the diverse variety of transverse lesions of the spinal cord, and by treating the dyskinesias, endocrine diseases, etc., each as a comprehensive group.

THE PATIENT AS A PERSON. A Study of the Social Aspects of Illness, by G. Canby Robinson, M. D., LL. D., Sc. D., Lecturer in Medicine, Johns Hopkins University. The Commonwealth Fund, New York, Publishers. Price \$3.00.

Dr. Robinson, with the cooperation of the staff of the Johns Hopkins Hospital has studied a series of unselected patients as to the social conditions, their emotional reactions to factors and their emotional reactions lying outside the range of physical pathology. All this material has been carefully studied and reported in detail in this volume. By the author's vivid, concrete presentation of the facts, by his penetrating discussion, and by his pertinent suggestions, Dr. Robinson has forcefully raised an issue of no small importance in the present and future of medical practice. The book should stimulate serious thought on the part of all who have responsibility for relating medical service to the health of the patient as a person. It contains material bearing on problems needing careful consideration at this time of changing attitudes toward medical care, preventive medicine, and mental hygiene.

ANATOMY AND PHYSIOLOGY—By Fred-eric Theodore Jung, B. S., Ph. D., M. D., Assistant Professor of Physiology and Pharmacology, Northwestern University Medical School, member of the Visiting Staff, Norwegian-American Hospital, Chicago; Anna Ruth Benjamin, B. A., M. D., Resident Physician Elgin State

Hospital, Elgin, Illinois; Elizabeth Carpenter Earle, B. A., R. N., Educational Director, School of Nursing, St. Elizabeth's Hospital, U. S. Department of Interior, President of District of Columbia League of Nursing Education. With 342 illustrations. F. A. Davis Company, Publishers.

The principal objective in preparation of this text has been to make the subject matter both interesting and practical. The plan has been to present, in the simplest possible terms, the basic facts concerning structure and activities of the parts of the human body, both to the practice of nursing and to the personal life of the student. It is an admirable text book for nurses, arranged in double column, with an abundance of illustrations.

PROCTOLOGY FOR THE GENERAL PRACTITIONER, A Practitioner's Guide to Modern Proctology. How To Apply The Advanced Aids of Modern Proctology. By Frederick C. Smith, M.D., M.Sc. (Med.), F. A. P. C. Proctologist to St. Luke's and Children's Hospital, Philadelphia, formerly Associate in Proctology, Graduate School of Medicine, University of Pennsylvania. F. A. Davis Company, Publishers, Philadelphia. Price \$4.50.

Dr. Smith constantly features in his book the proctologic problems met by the practitioner in daily bedside and office practice. And he has so planned his book that it is ready with quick answers and explicit directions on every problem.

Patients' complaints and symptoms are analyzed from the viewpoint of their causative pathology—an approach which will cast new light on many everyday diagnostic problems.

Therapeutic recommendations are given in rich detail, showing how to apply the advanced aids of modern proctology. Drugs, diets, minor surgery, and the complete care and after-care of the patient are carefully outlined, giving definite guidance at every step.

The 142 illustrations and 3 inserts in full colors, many of them by the author himself, comprise a truly remarkable collection of medical illustrations, instructive pictures which graphically portray every helpful point in examination, diagnosis and treatment.

WHAT IT MEANS TO BE A DOCTOR—By Dwight Anderson, Public Relations Bureau, Medical Society of the State of New York. 2 E. 103rd St., New York, Publishers. Price \$1.00. Cloth. 96 pages.

This volume is a brief treatise aiming to convey an impression of the doctor, way of life, his character, education, ability and skill.

OTOLARYNGOLOGY IN PRACTICE—By Lyman G. Richards, M.D. Fellow in Otology, Courses for Graduates, Assistant in Surgery, Harvard Medical School, Associate Professor of Otolaryngology, Tufts Medical School, Research Associate in Otolaryngology, Children's Hospital, Otolaryngological Surgeon, Peter Bent Brigham Hospital, Boston Massachusetts, with a foreword by D. Harold Walker, M.D., Professor Emeritus of Otology, Harvard Medical School, Past President, American Otological Society, Former Chief and Present Consultant in Otology, Massachusetts Eye and Ear Infirmary, Boston. Illustrated. The Macmillan Company, New York, Publishers. Price, \$6.00.

The aim of this book is to serve the general practitioner as a guide in distinguishing between those cases which he is qualified to treat and those which undeniably belong in the specialized field. The value of this specialized guidance will be better appreciated when one considers that it is estimated by many in general practice that at least 20 per cent of their work concerns itself with diseases of the upper respiratory tract and their complications.

The author keeps in mind the general practitioner's opportunities and also his limitations. It excludes all operative procedures which do not concern him since the purpose of the book is not to make of him a poorly qualified otolaryngologist but rather to enable him to reach a more precise diagnosis in the case of those patients who would consult their personal physician no matter what the nature of their ailment.

The arrangement is essentially on the basis of clinical symptoms with which the patient first presents himself. In this respect it is a radical departure from the standard textbook which usually presumes knowledge of the diagnosis before giving instruction as to treatment. Particular attention is devoted to the more common manifestations of otolaryngological pathology with which the general practitioner will come in almost daily contact. Clinical rarities are dealt with only superficially.

The illustrations are designed particularly to illustrate procedures and clinical entities which concern almost every general practitioner. They are exceptionally clear and accurate.

To the undergraduate student whose curriculum has been too crowded to admit detailed study of diseases of the ear, nose and throat it should prove useful in expanding his knowledge upon this subject and correlating it with the broad, general knowledge he has gained. It will thus serve as an introduction to the specialty and as a basis for more advanced study.

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1940

EDITORIALS

MESSAGE FROM THE
PRESIDENT-ELECT

Kentuckians have a glorious heritage and the medical profession has added generously to the history of our Commonwealth.

Transylvania University was the first medical school west of the Alleghenies (1799), and from that training our citizenship was supplied with physicians who were pioneers in the profession. The work they wrought has proven the firm foundation on which stands present day medicine and surgery. It is a comparatively easy task to continue established conditions but unusual and specific talents are required to chart a new course or to successfully solve new problems.

The profession in the past has cared for the indigent in most communities in Kentucky but changed conditions resulting from the large number of unemployed have brought tasks so burdensome that it is no longer possible. Too, many on work relief seem to feel that some agency should assume responsibility for their health and those dependent on them, adding to the burdens already carried by the profession.

It is a well known fact that new developments in the diagnosis and treatment of diseases, both medical and surgical, require hospitals, nurses and doctors for maximum service to those in need. Certain provisions are essential if all the people secure adequate attention and the financial burden must be distributed equitably and wisely.

Under Governor Chandler's administration and Dr. Wilson's direction our State hospitals have laid the foundation for scientific treatment of our unfortunates but conditions are still far from satisfactory and continued appropriations must be made to modernize our physical plants and perfect the medical and nursing personnel before we should be satisfied with results. The elimination of politics in their routine and a continuance of those in office who have proven faithful and efficient are essential in the maintenance of an institution of merit.

Trained nurses are required to render highest service to the sick and each community should be supplied in sufficient numbers. The city hospitals graduate many each year suited to the needs of their respective communities but the restrictions and requirements of training

schools are depriving rural Kentucky of graduates for a large portion of our people. We are urged to secure them from the medical centers but after three to five years training, few of the better nurses are willing to locate in small towns or nurse in the country. When the active nurses cease to supply their community needs, no longer will those localities have this blessing. Surely individual small hospitals must have relief if the future interests are conserved. The exactions are so rigid that unless some changes are made or financial aid is secured, it will result in the closing of many institutions that have carried on in a most acceptable manner for years as hospitals and training schools.

These are questions for the medical profession to decide and any changes made must be with its sanction or emanating therefrom.

Our Association numbers in its ranks many men of vision, capacity, resourcefulness and leadership and it is incumbent that a definite program be sponsored by this group in the interest of all our people and fair to the great body of patriotic physicians who will continue the present physician-patient relationship, which has produced in the United States the greatest profession found in any country.

In the interest of the future of Organized Medicine in the fulfillment of its loftiest ideals an appeal is made that by cooperation and unity of purpose we shall hold high the torch of professional accomplishments.

AUSTIN BELL.

OUR ADVERTISERS

The Editor of the Journal of the Medical Society of New Jersey wrote an editorial for the October issue under the above title which is so appropriate to Kentucky that we are, with his permission, reproducing it for the information of our own members:

Our advertisers are our partners in the project of the Journal. Oh yes, we *could* get along without the help of our advertisers, but we are grateful to them for paying the costs of the mechanical production and distribution of our monthly periodical, and then too, our members appreciate the information and educational value of the advertisements

to themselves personally. For one thing, our acceptance of an advertisement amounts to an endorsement of the product of service of the advertiser, especially of his character and reliability. Also, the advertisements constitute an index of the sources from which products or services may be obtained.

One of the most pleasing and satisfactory evidences of the mutual appreciation of advertisers and users of their products is that afforded by the commercial exhibits at the annual meeting. There, sincere appreciation and good fellowship prevails between the representatives and the doctors, just as it does between the physician and his patient.

An advertisement in The Journal is like the doctor's sign over the door of his office. Only a small proportion of those who pass by the sign ring his doorbell; but if his sign is not in plain sight, he may as well close up. Only a few doctors read the advertising pages of our Journal from end to end, but some really do, and more actually complain when they cannot find the advertisement giving the address of the dispenser of a product which they must have in a hurry.

About one-half of our advertisements come to us from the Cooperative Medical Advertising Bureau of the American Medical Association, whose sole function is to place the announcements of the leading manufacturers of medical products which have a nation-wide distribution. A favorite device for testing the effect of the advertisements in the State Medical Journals is the use which physicians make of coupons offering samples or literature. One publisher of an expensive encyclopedia refused to renew his advertisement in the journal of one of the large medical societies because he had not received a single request for sample pages which he had offered. He said in a half joking way, "If I receive four coupons from an announcement in the forthcoming issue of your journal, I will immediately renew the advertisement." It happened that he received twelve requests, and he gladly kept his word.

Every doctor sees these coupons and other offers in our Journal, and many physicians are inclined to respond to them, but neglect to do so. If you are really interested in the offer, as many of you are, make use of it at once. This is especially important during the coming Fall months when decisions for renewing the

advertisements are made, based on the tangible evidence that the advertisements are actually read and appreciated.

It is a gratifying fact that several large advertisers are seriously contemplating placing trial advertisements in the State Journals. Although we may not recognize your prospective customers, send for the coupons and literature that are offered in The Journal, and thereby demonstrate your interest in The Journal as well as the products which you will receive.

Finally, remember this fact: If it were not for the contributions of our advertisers your annual dues would be increased by about three dollars.

IN MEMORIAM

Dr. E. B. Willingham, who practiced medicine in Paducah for 32 years, died at his home, at 7:30 o'clock, December 6th. Death came from a heart ailment after an illness of two days.

Dr. Willingham was a native of Carlisle County and began his practice in Cunningham, later moving to Paducah.

A graduate of the medical school of the University of Louisville, Dr. Willingham was prominent in local and district medical circles and was well known as a heart specialist. He was a past president of the McCracken County Medical Society and of the Southwest Medical Association and at the time of his death was President of the Riverside Hospital staff. He was also a member of the building committee for the new main building at Riverside. Dr. Willingham was a member of the McCracken County Board of Health and was honored at a state medical meeting in Bowling Green this year as an Orator in Medicine. He served in the army for eighteen months in the World War, during which time he earned the commission of Captain.

Active in the founding of Arcadia school, later named Adam Brazelton School, Dr. Willingham served as chairman of its board for about fifteen years before the school was taken into the school system.

Members of the Paducah and McCracken County medical profession served as honorary pallbearers. Active pallbearers were: Dr. Palmer Reed, Dr. R. W. Robertson, Dr. E. W. Jackson, Dr. Harry D. Abell, Dr. Vernon Pace, and Dr. Erret Pace.

If we would settle down to work and spend wisely and live conservatively our largest national problems would be solved.

COUNTY SOCIETY REPORTS

Jefferson: The following was the program for the Jefferson County Medical Society for December:

December 4: Address by Henry C. Sweany, M. D., Medical Director of Research, City of Chicago Municipal Tuberculosis Sanitarium, Chicago, Illinois. Subject: "Some Important Complications of Tuberculosis."

(Given under the auspices of the Louisville Tuberculosis Association.)

December 18: Refresher Course in Hematology, Harold Gordon, M. D., University of Louisville Department of Pathology.

Address by Bayard T. Horton, M. D., of the Mayo Clinic, Rochester, Minn. Subject: "New Syndrome of Vascular Headache; Results of Treatment with Histamine and Histamine-Ace."

"Pollution of the Ohio River and its Elimination." Hugh R. Leavell, M.D., Director of the Louisville Health Department.

W. B. TROUTMAN, Secretary.

Franklin: Your committee, appointed at the regular monthly meeting of the Franklin County Medical Society on November 10, 1939, has prepared the following memorial on the death of Dr. Eugene Carl Roemele.

Dr. Roemele's death occurred on October 14, 1939, at the age of 62. He was a graduate of the Hospital College of Medicine, Louisville, Ky., graduating in the class of 1895-1896. He practiced in Louisville and Owen County for a short time after graduation, moving to Frankfort in 1904, where he continued to practice until the day of his death. He was county health officer of Franklin County for 24 years; he served for four years as director of the Medical Service of the Old Frankfort State Reformatory; he served as Consulting Physician for the State Highway Department for three years; was on the staff of the King's Daughters Hospital; member of the Franklin County Medical Society, whose President he was in 1921; member of the Kentucky State Medical Society and of the American Medical Association.

We, your committee, knew him most intimately, especially in the field of pediatrics, that branch of medicine dealing with children, for whom he had the fondest love and appreciation.

Be it resolved, that in his passing to that great beyond, this Society has lost a valuable member and that we extend to his family our condolence and sincere sympathy in this hour of bereavement. Be it further resolved, that a copy of these resolutions be sent to the family,

to the State Journal, to the Kentucky State Medical Journal, and that a copy be spread upon the minutes of this Society.

W. S. SNYDER, JR., M.D.

L. T. MINISH, M.D.

R. M. COBLEN, M.D.

Letcher: The Letcher County Medical Society held its regular monthly meeting Tuesday, November 28th, 1939, in the Jenkins Medical Unit. The meeting was called to order by the President A. L. Sparks and the minutes of the previous meeting were read by the Secretary, J. E. Johnson. The following are members of the society: R. C. Bach, Carl Pigman, J. E. Crawford, A. B. Carter, H. R. Skaggs, D. V. Bentley, C. M. Bentley, E. S. Skaggs, R. D. Collins, B. F. Wright, T. R. Collier, G. D. Ison, C. B. Ison, Owen Pigman, J. Y. Harper, E. F. Sheppard, A. L. Sparks, J. E. Johnson, J. E. Tankard, J. E. Stanfill, T. M. Perry, O. F. Kleckner, N. D. Priddy and N. H. Short. New officers for the year 1940 elected were J. E. Johnson, President, Carl Pigman, Vice-President, J. Y. Harper, Secretary.

Several motion pictures made from operations in the Jenkins Hospital were shown, explained and discussed. Several cases, including History, Physical Examination, X-Ray, Blood Chemistry, etc., were brought up and discussed by various members of the Society. The next meeting will be held Tuesday, December 26, 1939, at the Fleming Hospital. E. S. Skaggs and H. R. Skaggs will be in charge of the program.

J. E. JOHNSON, Secretary.

Whitley: The Whitley County Medical Society met on December 7th at the office of L. L. Terrell, and the following officers were elected for the ensuing year: President, J. E. Allen; Vice-President, D. S. Merenbloom; Secretary and Treasurer, C. A. Moss; Board of Censors, L. X. Brown, H. L. Walden, O. L. Richmond; Delegate, L. L. Terrell; Alternate, W. M. Cox.

C. A. MOSS, Secretary.

BOOK REVIEWS

GYNECOLOGY, MEDICAL AND SURGICAL—By P. Brooke Bland, M. D., F. A. C. S. Professor Emeritus of Obstetrics, Consulting Obstetrician, Jefferson Medical College Hospital, Philadelphia Lying in Hospital, Formerly Associate Professor of Gynecology, Jefferson Medical College, Visiting Gynecologist St. Joseph's Hospital, Assisted by Arthur First, M.D., Associate In Obstetrics, Jefferson Medical Col-

lege, Mt. Sinai Hospital, Philadelphia, Assisting Gynecologist, Stetson Hospital, Third Revised Edition with 445 illustrations, most original, including 31 full plates in color. F. A. Davis Company, Philadelphia, Publishers, Price \$8.00.

In this new third edition, most all the text has been rewritten and every effort has been made to present the subject in a readable, concise and comprehensive way. The text of each chapter has been reconstructed to accord with the present day conception of the specialty. In regard to the special anatomy concerned in gynecology, a very minute detailed description has been given, including new illustrations.

Endocrine therapy is embodied in a special chapter and many new, interesting facts are given. Because of the growing importance of tumors designated endometriomas, a special chapter has been included. Many of the standard surgical procedures are fully discussed and illustrated.

SURGERY OF THE EYE—By Meyer Wiener, M.D., Professor of Clinical Ophthalmology, Washington University School of Medicine, St. Louis, Missouri; and Bennett Y. Alvis, M.D., Assistant Professor of Clinical Ophthalmology, Washington University School of Medicine, St. Louis, Mo. 445 pages with 396 illustrations. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$8.50 net.

The general practitioner as well as the specialist should read this book, for it meets the longfelt need for a complete and fully illustrated work on surgery of the eye.

There are 452 illustrations which are original, and are the work of a physician artist.

For major and minor operations, including preoperative and postoperative management, are given in detail.

A SHORT STORY OF CANCER OF THE BREAST AND CANCER OF THE UTERUS, Second Edition—By Marion Ellsworth Anderson, A.B., M.D., Clinton, Iowa. The Franklin Press, Publishers.

It is the desire of the writer that this little brochure be sold for one dollar and the greater part of the profits go to a cancer fund and this fund be known as the Sims-Cullen Cancer Fund. All of the funds derived from the sale of the brochure to physicians, dentists and nurses to be located at Johns Hopkins. If it should be considered the proper book for the laity, as many have already indicated, then all the funds derived from the sale to the laity must remain as a cancer fund in the state where sold but still bear the name Sims-Cullen Cancer Fund.

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BEING THE JOURNAL OF THE KENTUCKY STATE MEDICAL ASSOCIATION

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PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

THE PATIENT A PERSONALITY NOT A MACHINE

JOHN H. BLACKBURN, M.D., F.A.C.S.

Bowling Green

"We have not to build a body or a soul but a human being, and we cannot divide him."—Montaigne.

In our daily contact with men we, as physicians, are prone to think of their bodies as being under physiological regulation, but when people become patients they are as a rule under pathological control. Let us then consider the patient as a whole, remembering that he doubtless has definite organic changes in his body which are responsible for certain signs and symptoms that are found, but that he may at the same time be suffering from disturbances of nervous or mental functions which are causing many changes in sensation, reaction or response. Let us think of him in his setting in life, with his varying and multitudinous surroundings and influences, to which he may respond in a normal or an abnormal manner.

Sir Arthur Keith in his "The Engines of the Human Body" (1922), gives us a most interesting discussion of the mechanism of the human body in language that may be understood by the populace. He compares the muscles of the body to the engine of a motorcycle; discusses the bones as levers; describes the heart as a great pump, and considers the heat production and regulation of the body. He also discusses the laboratories and workshops of the body in which food is converted into fuel and for the replacement of worn out parts, and he finally correlates and synchronizes the workings of the various parts of this intricate human mechanism through the elaborate electrical wiring of the nervous system.

In contrast with this little volume let us consider one of the recent texts, Macleod on "Physiology in Modern Medicine." This was first published in 1918, has gone through seven revisions in the 21 years, has been enlarged and rewritten because of the discovery of many new facts, and because of changes in its field of work. Originally it was published as "Physiology and Biochemistry in Modern Medicine," but recent editions have dropped the consideration of Biochemistry and discuss

only the physiological aspects of modern medicine, giving us a modest little volume of 1,100 pages.

This is mentioned to show the extent to which research and experimentation have gone in this particular field in recent years in our efforts to know the human animal body and its "workings." When we consider the volumes devoted to embryology, anatomy, physics, physiology, chemistry and biochemistry, pathology, bacteriology, and collateral branches of study, we shall see what a wide field of knowledge the student at this time must cover in the so-called basic sciences before he begins to build the real structure in which we are so much concerned, the modern physician.

While our present system of medical education gives the student much real work in the practical side of the practice of medicine, it is only after he enters practice that he begins to develop the real art of medicine, the art that develops as the result of persistent daily study of patient and disease, recognizing the interdependence of the science and the art of medicine and leading to the full development of that much-to-be-desired faculty of the successful practitioner of medicine, "clinical wisdom." In most of his "schooling" the average student gets the impression—rather subconsciously, no doubt—that disease is the response and reaction of the human body in most instances to the invasion of certain particular bacteria or other irritating factors, these reactions and responses in turn producing what are known as "symptoms." We are all no doubt familiar with the lady of color who consulted the physician, and when asked "What is your trouble?" she responded "Doctor, I has symptoms." In one of our own cases, in answer to the question, "Have you had a chill?" she said, "No sir, Doctor I ain't had no chill, but I has had the symptoms of a chill."

This tendency in medical education and in medical practice is very clearly stated by McGregor in his recent volume, "The Emotional Factor in Visceral Diseases." Let us quote from his introduction:

"The practice of medicine is still dominated by the conception of a physical or organic origin of disease. For each ailment, for each symptom or sign there is a cause; a lesion which is explicable in terms of pathology, bacteriology, endo-

crinology, allergy, or heredity, and for which there is a more or less specific remedy. When there is no specific remedy, often there are remedies which may help; and when there are no remedies, then there are certain procedures to be adopted that may assist nature to overcome the ill. If a disease is incurable it is either because the pathological process has progressed beyond repair, or else because medical knowledge has not yet achieved a sufficient understanding of the particular ailment and its antidote.

"This outlook is acquired, rightly or wrongly, during the years of medical training. Upon a necessary foundation of anatomy and physiology medical education builds up a detailed knowledge of organic pathological processes. The greater part of the curriculum is devoted to studying disease as a defined entity. In the wards are learned the signs and symptoms by which a disease may be recognized. In the pathological laboratory and post-mortem room are seen the structural alterations which underlie these clinical findings, and in the bacteriological department are studied the defensive reactions of the body following invasion by germs and parasites. Indeed, so emphatically are the structural alterations which accompany dysfunction demonstrated under the microscope that any state that has no definite pathology appears to be unreal or of minor significance."

Symptoms are definitely related to certain pathological changes in most of the organic diseases to which the body is subject, and we are taught much of the "mechanism of disease." In the effort to associate each symptom with some specific pathological change in some part of the organism we resort to all manner of blood, and chemical, and x-ray examinations, and subject our patients to basal metabolic tests, to electrocardiographic examinations, and make use of all available laboratory aids. Not for one moment would we decry the use of any of these tests or examinations in our effort to learn the cause of the symptoms from which the patient is suffering; in fact most of us are in the habit of calling to our assistance any specialist whose particular training may be of help in arriving at a diagnosis. But after one of our modern complete physical examinations in some clinic or hospital or group—all too often our patient is returned to us with the opinions of

half a dozen different specialists attached, and with the statement that he is practically normal so far as the physical findings are concerned; that he, or, more often she, is somewhat nervous, and requires only "rest and mild sedation." And many times the patient returns with the impression that the clinic thinks there is nothing the matter with her.

In discussing this phase of the practice of medicine Peabody (Doctor and Patient, p. 22) says, "The latest substitute for the breadth of vision of the general practitioner is that offspring of the American God of Efficiency, the Diagnostic Clinic. . . . At its worst, however, the Diagnostic Clinic is a machine, and the patient is automatically passed from one specialist to another and submitted to a series of examinations, so detailed in their nature that it would seem that nothing could be overlooked. The result is a list of so-called "diagnoses," in reality a list of deviations from the normal, some of which may, and others of which certainly do not have any bearing on the patient's trouble. The unfortunate thing is that only too often the patient undergoes treatment for some of these unimportant conditions and at the same time, because of the lack of some one man who understands the situation as whole, the real underlying difficulty is entirely overlooked."

If we are careful we shall always give deep consideration to every case to determine, if possible, the presence of some organic disease, and if this is not found, to learn the nature of the functional disorder. We should remember that many of our so-called "nervous reactions" may be found in the presence of organic disease. In turn, we should bear in mind that basically these nervous systems of ours vary as much in function and response as do our physical bodies in size and shape, and that we are all susceptible to many and various influences in our social, business and domestic lives. We should then try to determine in each case whether the symptoms presented are the signs of some disease, or whether they represent more accurately the "response" of a certain nervous system to a particular "stimulus," remembering that there are many "circumstances, other than bodily, which may render the normal calls or stimuli of life more difficult to meet." (Wilson: *Pygmalion, or the Doctor of the Future*).

As Peabody says (Doctor and Patient, 1930, p. 32) "Everybody, sick or well, is affected in one way or another, consciously or subconsciously, by the material and spiritual forces that bear on his life, and especially to the sick such forces may act as powerful stimulants or depressants. When the general practitioner goes into the home of a patient he may know the whole background of family life from past experience; but even when he comes as a stranger he has every opportunity to find out what manner of man his patient is, and what kind of circumstances make his life. He gets a hint of financial anxiety or of domestic incompatibility; he may find himself confronted by a querulous, exacting, self-centered patient, or by a gentle invalid overawed by a dominating family; and as he appreciates how these circumstances are reacting on the patient he dispenses sympathy, encouragement, or discipline. What is spoken of as a "clinical picture" is not just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded by his home, his work, his relations, his friends, his joys, sorrows, hopes and fears."

In dealing with our so-called "nervous patients" shall we then say that there is nothing the matter because we are unable to find any definite organic changes to account for the symptoms? Shall we tell her that she has no pain because the location and distribution of the painful sensations cannot be explained on an anatomical or physiological basis? Shall we tell her, because we can't find the cause, that her complaints are all "imaginary?"

In the care of patients of this type we should realize that only an accurate diagnosis as to physical and psychic factors will lead to the proper treatment. How well do we recall walking the wards with Englebach in one of the St. Louis hospitals a few years ago when he exhibited a patient, a young woman of twenty-four, who had long suffered with abdominal pain, who had had three abdominal operations and had, in succession, lost her appendix, and then one ovary and later the remaining ovary and still suffered abdominal pain. Surely she had "suffered much at the hands of many surgeons" and had only her abdominal scars to show for it. As a result of the recognition of the disturbed endocrine functions in this particular young woman and the institution

of proper treatment she was making a rapid recovery.

Recently in a paper presented to the Southeastern Surgical Congress on "Emotional Disturbances with Pelvic Symptoms," W. O. Johnson, Louisville, studied and classified 100 cases of this nature. He states: "One might ask why should such a paper be presented to a group of surgeons and gynecologists. It is the surgeon and the gynecologist to whom these cases are sent, or to whom they present themselves for relief from pelvic discomfort. A majority of these cases have been treated for months or even years without relief. Now they have become desperate, and it is the surgeon who must give the patient an answer or some hope of relief. In 72% of the cases reviewed the patients had been told more than once that a pelvic operation would relieve symptoms. As surgeons we know that operations are bad forms of psychotherapeutics. It might well be said operations would make the majority of these patients chronic invalids, and heap the sins of commission upon surgery."

May we here and now disclaim any pretense as posing as a psychiatrist or neuro-psychiatrist and be it far from us to assume any of the proportions of a modern psychoanalyst, with all his Freudian propensities, but we are only asking that the same time and attention be given our "nervous" patients that we give to a case of some obscure chest or abdominal condition, or in one of the rare blood dyscrasias, for in the work of most of us, patients of this type compose a relatively large part of our practice. It is true we shall find many cases that are more than "neurotic" or neurasthenic or psychasthenic, and with the recent advances in the handling of our psychiatric hospitals in Kentucky it is to be hoped that we shall soon have available for all of us, specialists in this line of work to aid in the diagnosis and treatment of these conditions.

May we remember in the care of our nervous patient, with all of her various and sundry complaints, that we are not dealing merely with an anatomical machine, but with a personality whose life is made up of joys and sorrows, of cares and pleasures, of all sorts of emotions, which act as stimuli or depressants of varying intensity to an already sensitive nervous mechanism, and that frequently sympathy and frankness are as sedative

to an upset nervous system as a teaspoonful of bromides.

Who, in the history of American medicine, was more thoroughly qualified by training and culture and practice to speak advisedly in matters of this kind than our own adopted Osler? Let us harken to this Sage of Medicine: "Deal gently then with this deliciously credulous old human nature in which we work. Curious odd compounds are these fellow creatures, at whose mercy you will be; full of fads and eccentricities, of whims and fancies; but the more closely we study their little foibles of one sort and another in the inner life which we see, the more surely is the conviction borne in upon us of the likeness of their weaknesses to our own. The similarity would be intolerable, if a happy egotism did not often render us forgetful of it. Hence the need of an infinite patience and of an ever-tender charity toward these fellow creatures; have they not to exercise the same toward us?" (*Aequanimitas, and Other Addresses*, 1906, p. 6).

DISCUSSION

W. E. Gardner, Louisville: I consider it a privilege to have the opportunity to open the discussion on a paper by Dr. Blackburn who has served so capably as Chairman of the Committee of Arrangements, and I congratulate him that with all these responsibilities he has been able to produce such a splendid paper. It is a wholesome reaction on the part of surgeons and internists within the past few years that they are beginning to manifest an interest in treating the total individual. For a number of years those of us who have been interested in mental and emotional reactions have been inclined to follow the teachings of Dr. Adolf Meyer of Johns Hopkins, who for a long time has been the chief proponent of the psychobiological approach in treating nervous and mental disorders, and that means a study of the total individual. Heretofore, you know, there has been a tendency on the part of surgeons, internists, and diagnosticians generally to give patients a very thorough physical study and workup, and when no physical basis for the symptoms can be demonstrated the statement is frequently made to the patient, "You have no serious disorder, your complaints are more or less imaginary and you should forget about them and go ahead and try to act like a normal individual." A good many people are beginning to realize that they don't feel well even after that sort of advice has been given to them; they know that they are still ill; they are uncomfortable; they are reacting to various social, economic, and inter-personal relationships which cause them to be disturbed.

Dr. Blackburn quoted somewhat from the wholesome philosophy of the colored race, and I am reminded here of a statement that my friend Hambone made a good many years ago. After he had a thorough examination by a physician and was told there was nothing wrong with him, that he was perfectly well, he said, "Well, if Ah feels as bad as Ah do when Ah'm supposed to be well, Ah wonders how bad Ah'd feel if Ah was really sick." I think that is the way a great many individuals feel about the situation. Doctors, however, are beginning to give more value to the fact that the individual has mental and emotional reactions as well as anatomical, physiological and chemical constituents. This is a very good thing, and the trend is rapidly increasing. Dr. Blackburn spoke of the fact that in medical schools, therefore, there has been a tendency not to take into consideration sufficiently the reaction of the total personality. In latter years, however, that situation is being corrected and the trend now in modern medical schools is to pay more and more attention to the total reaction of the individual.

In the first paper this morning, Dr. Salmon, speaking of eye conditions, referred to the importance of the total individual, and, as I said before, we must realize that the individual is reacting to various environmental factors. Even in a hospital, while his environment may be considered pretty static, yet it is never entirely so; there is always a dynamic environment which confronts the individual. How is he reacting to his illness, to his nurse, to his physician, and to people about him? Doctors themselves, are pretty poor patients, as a rule, and when I had the experience recently of having to spend several weeks in a hospital, I realized how much little things do sometimes affect one's emotional reactions. For instance, men generally, you know, have an aversion to enemas, and while I was ill I actually had a dream one night that the State Medical Association had passed resolutions that it would be unlawful to give a physician an enema. This is just an illustration of how trivial matters may react upon us.

I want to again congratulate Dr. Blackburn. He has quoted from very substantial authorities who are largely physiologists or men who are interested in this broad subject from the standpoint of the interest. I am happy to say that those of us who are interested from the standpoint of psychiatry and the allied branches of the subject are quite pleased to note that prominent surgeons and internists who have been in practice a number of years are now beginning to recognize and promulgate the importance of the principles which Dr. Blackburn has called to our attention so gracefully and so forcefully.

George P. Sprague, Lexington: It is a very

great pleasure to hear a paper such as Dr. Blackburn has given us. Those of us who ante-date recent laboratory developments in medicine thought for a while that the newer, younger doctors were paying exclusive attention to the laboratory findings and forgetting that it was a very sick man that they were really dealing with, but there has been a great change in just the last few years in recognizing just what Dr. Blackburn referred to, the individual, and it is not merely the sick individual that we have to deal with but we should constantly recall that the sick individual is a different individual every time. For instance, if we have a dozen cases of malaria or rheumatism or typhoid fever, we haven't a multiple of those diseases by twelve, but we have twelve different diseased conditions according to the peculiar individual make-up, both emotionally and chemically, of the person who is ill. That is a thing that we often forget, that the very remedies, the very treatment, the very behavior of the physician and the environment generally that would be helpful to one patient may not be helpful or may be detrimental to another.

I think we all ought to be thankful to Dr. Blackburn for calling our attention to individuality, to the personality, in contradistinction to, certainly in addition to, the actually diseased condition that our clinical and laboratory findings discover for us.

S. B. Marks, Lexington: I know we have all enjoyed very much Dr. Blackburn's philosophical essay. Philosophy is great stuff, and the proper philosopher is also great stuff. Alexander Pope many, many years ago in his *Essay on Man*, which is a good thing for every doctor to read about twice a year, said that the proper study of mankind is man. Unless we get too serious at this meeting, since our worthy and honored Secretary is becoming older and older as he progresses, so this meeting is becoming seriouiser and seriouiser. Remember Sir Arthur Keith with his motor bike. However, while the motor bike wears two shoes as we do, and it should be well to keep them above the ground, the wheels of man are in his head.

W. O. Johnson, Louisville: We will remember the poem, "Trees." To paraphrase, "Only Dr. Blackburn can write a paper like that!"

Dr. Blackburn stated that the response of the individual is his response, colored by the stimulus about him. We, as medical men, so often are found treating a person's thyroid, pelvis or metabolism, when we should find out what is the cause of the changes produced. Once the causative factor is found, the symptoms are easily eradicated.

Many an early case of hyperthyroidism can be successfully treated and restored to health by eradication of the emotional disturbance before permanent changes have taken place in the gland.

We all know that 65% of our bodily ailments are the result of functional disturbances, and such disturbances are just as distressing to the patient as are organic disorders. It isn't good to the patient to go over them thoroughly and say to them, "You have nothing wrong with you." We call them neurotics or psychoneurotics or P. M. S.'s, or whatever you want to tabulate them, but it is certainly not a benefit to the patient to have him placed in such a category, because we then lose interest in the treatment of the patient and he seeks other fields for sympathy.

I feel it as much our responsibility to guide the patient back to a means by which he can adjust himself to a living environment satisfactorily, as it is for us to give some pills or give him some "shots," and many times we find that our results are much more satisfactory than they are by giving some pills and "shots."

The thing that is needed above everything else, as Dr. Blackburn has pointed out, is more time, more consideration of the patient as a whole, and above everything else a thorough understanding of the individual personality as a whole, and in doing this these patients are delighted to help you help them.

J. H. Blackburn (in closing): Thirty-five or thirty-eight years ago I went out to the edge of town here and saw a baby with a classical summer complaint. I began to question the mother as to what had been fed to that eight months' old baby. It was in July and it was nearly as hot then as it sometimes gets in Bowling Green in September. She insisted that the baby had had nothing but the breast. I asked about the maid, whether she had given it any thing, and she insisted that she had no maid, that that baby had been with her constantly for twenty-four hours and then I began to wonder and had sense enough to consider the source of supply, and I said, "Well, madam, has anything happened to you?"

She looked at me a little bit startled, her face flushed a little, and she said, "Yes, doctor."

I said, "Well, what is it?"

She said, "Doctor, my husband came home yesterday at noon and we had a spat and I have never in my life been as mad as I was for about thirty minutes."

If that sort of emotional upset can disturb the functions of the mammary glands, I felt there was more than looking for bacillus enteritides in the milk supply when it all came from the mother's breast.

One other case called my attention to this, and this is for fear this discussion might get on too serious a basis. She was a pupil in the Western State Teachers' College and she came from Dr. Sam Marks' neighborhood, up in the Blue Grass region. She was tall and willowy and good looking and rather attractive all together, but I soon discovered that she was one of these sniffers. When she came in the office and sat down I said, "Young lady, what is your trouble?"

"Sniff, sniff. I don't know, Doctor. I think I have stomach trouble."

Well, taking her suggestion as to stomach trouble, I thought I would run down some stomach trouble symptoms and I interrogated her from one end of the category to the other. Finally I said, "You are holding something back, you are not telling me the whole truth. Now, young lady, what is the matter with you?"

"Sniff, sniff. I don't know, Doctor, unless I'm in love with the wrong man." (Laughter.)

THE ANEMIAS OF INFANCY AND CHILDHOOD

W. N. LIPSCOMB, M.D.

Lexington

Musser and Wintrobe maintain that the anemias of childhood have been very inadequately studied. Broadly speaking, Sanford states: "As compared with the school years, anemic states mild or severe, are much more common among little children." Zahorsky comments: "All infants and young children, at least in our large cities, are relatively anemic, that is, their hemoglobin is low. The incidence of anemia is high during infancy and childhood. A physiologic anemia of children reared in our large cities is generally recognized." He adds that this is rarely true of rural children. Anemia may produce signs which suggest primary heart disease. "Anemia produces an increased heart rate and volume of cardiac impulse. Loud murmurs may be heard." (Parsons). Further, quoting Blackfan: "In view of the not infrequent error in diagnosis which has arisen from the overshadowing of the signs of blood poverty by those of cardiac disturbance, it seems safer to hesitate to make a diagnosis of primary cardiac disease, either congenital or acquired, in the presence of severe anemia until the latter has been successfully relieved." Parsons remarks that children with severe forms of anemia may tolerate exer-

cise well. He noted vigor and absence of dyspnea in those with red blood counts of two million or less. His clinical view is that a feeling of lassitude and weakness in limbs eventually limit activity prior to the expected dyspneic syndrome. This suggests failure of skeletal muscle rather than the myocardium. With acute anemia the tolerance to exercise is decreased; with chronic anemia adaptation to low hemoglobin may occasion no impairment of exercise tolerance.

It is a peculiar fact that of two children with the same type of infection at the same time, one may have a grave anemia concurrently or afterwards. Certain bizarre reactions to known or unknown stresses become better understandable when blood pictures are remembered as normally different in the infant, the child, and the adult. Nutritional or dietary anemia are fairly prevalent. Blood loss, blood destruction, and defective blood formation can occur in a single instance. In mitral regurgitation and especially in mitral stenosis, an existing anemia may be masked by redness of the cheeks and lips. Gastrointestinal symptoms due to anemia such as the common ones of anorexia, nausea, flatulence, abdominal discomfort, constipation, and diarrhea are common to many other pathologies. Lichtmaun reports a paroxysmal hemoglobinuria due to cold, not related to syphilis, relieved by liver therapy. Hemoglobinuria can occur in hemolytic jaundice. Burmeister and McKenzie usually identify it with congenital syphilis.

"It is surprising that there is still so little known of the physiological and chemical structure of the vitally important red blood cell," states Cooley. The research worker has probably accomplished a little more here than in arthritis and gonorrhea. The type of response of the red blood cell may even vary racially as sickle cell anemia is almost exclusive to negroes; clinically in terms of hemolytic jaundice which may be overlooked in pathogenesis; and it should not be forgotten that the premature infant is peculiarly liable to develop severe anemia.

Understanding etiology of blood processes is more essential than terminology. Blackfan and Diamond are a bit caustic as here quoted: "All we ask of a name is that it bear some relation to the essential nature of the condition; possibly it is asking too much at a time when hemo-

globinuria is classed with urinary disturbances; and a peculiar form of anemia can be called splenomegalic pernicious anemia without any effort to determine the essential nature of the disturbance."

Thus out of these concepts was born this selected subject. It will ignore clinical pictures and eliminate therapy. Laboratory guides are brief. Varieties of classifications are omitted. Mitchell's views are: "The many unsolved problems make classification difficult." Cooley comments also: "Anemia being a symptom of diseases produced by a great number of etiologic agents, the nature of many being little understood, there is little wonder that classification is at present unsatisfactory." The purpuras, the leukemias, and the reticuloendothelioses are mentioned only in passing. The blood is so complex and its functions are so diverse, that to consider all conditions of abnormal hematology would require discussion of most diseases. Anemia in the infant can even precede pediatric sovereignty. The obstetrician should practice preventive medicine especially on intra-uterine twins from the third month on, as the iron demand is double, the supply single. Later the anemias can affect the prognostic program of any physician dealing in tender age groups. Hematology is recent. Retreating down the avenue of years we find speculation preceded knowledge of fundamental processes involved. Historically then it is no different from other branches of medicine. The general plan here is to exhibit just a few signs and reminders to help the clinical motorist drive the correct highway of a child's life.

It is necessary to have a clear-cut view of hematology in infancy, childhood, and adult years. The anatomy and physiology in the three age groups is thus reviewed by Blackfan and Diamond: "In the adult blood formation takes place chiefly in the ends of the long bones and in the flat bones. In the child this hematopoietic tissue fills not only all the flat bones but also most of the marrow cavity of the long bones. In the infant the available marrow space in practically all the bones is filled with red marrow tissue and ordinarily no yellow marrow is present. As a consequence of this, in the infant and the child a relatively small

reserve area is present for expansion and utilization for increased blood cell production as compared with the large yellow marrow spaces in the adult which may readily undergo metaplasia and form blood cells in case of need. Anemia may therefore result from a lesser drain on this system in the child than would affect the same change in the adult.

Physiologically there is also considerable difference between the hematopoietic system of the adult and the child. In the adult, the erythrocytes and the leukocytes present in the centers of hematopoiesis are in a relatively mature stage of their development. In case of need, therefore, a large number of each of these types of mature cells may be thrown into the circulation. In the child, however, the blood forming centers contain relatively fewer mature cells and greater numbers of immature ones. In response to a constant demand the mature cells are quickly exhausted and immature forms appear in the peripheral blood with great frequency.

The knowledge of these essential basic differences and its application to the presence of early anemia, splenomegaly, and immature cells in the peripheral blood should lead to a better understanding of the anemias of early life.

The variation in the normal levels of the blood from birth to adolescence is necessary to recall in evaluating individual reports.

Joseph of Baltimore states: "There are two ways of approaching the subject of anemia: We may look on the various forms of anemia as the result of definite anatomic changes which constitute the disease of which the blood picture is the superficial aspect; or we may look on the anemia as due to disturbances in physiologic processes which have been brought about by the varied etiologic factors. There is a tendency at the present time to regard hypochromic anemia as synonymous with iron deficiency anemia, partly because of the outstanding success of iron therapy and partly because the etiologic factors associated with the more severe grades of hypochromic anemia are such as to lead to iron deficiency. The most clearly understood etiologic factors are those associated with iron deficiency; anemia of the mother during pregnancy; rapid growth; diet low in iron; gastro-

intestinal disturbance leading to interference with absorption as in dysentery and celiac disease, or associated with hypochlorhydria; loss of iron from the body as in acute or chronic hemorrhages. The part played by infection and many other conditions leading to hypochromia is not at all understood." Helen Mackey states that the iron deficiency anemias lower markedly the resistance of the child to infectious diseases; in fact regards these as predisposing to infection.

Children are susceptible to practically every anemic state found in adults. Therefore, detailed discussion would require consideration of all forms, with the possible exception of pernicious anemia. Kracke and Garver comment that hematopoietic reactions to stimuli are more severe, rapid, and embryonic than in adults. Only a background of fundamental facts about a few conditions and diseases can be here presented—a mere fraction of hematologic study.

Anemia is to be considered with any blood loss. In large acute hemorrhage a temporary concentration may occur with increase of hemoglobin and red blood cells. Slow blood loss in children is not common.

Anemia can occur in every-day cases such as prematurity, chlorosis, nutritional disorders, "rickets," and syphilis. Anemia has developed with the use of goat's milk (Mitchell). It may also occur when cow's milk is used too long as a total diet.

Long-continued albuminous discharges, as seen in nephritis, also chronic suppurative processes and chronic diarrheas suggest blood study. Sepsis and pyemia may cause severe and often fatal anemia. Anemia may be seen in heart disease, each entity often aggravating the other. Late infancy usually evidences a moderate physiologic hypochromia.

Chlorosis seems to be of more historical than factual interest yet such a diagnosis is not out-dated. Heath of Harvard in a fairly recent article on chlorosis, sounds this warning: "The presence of an iron deficiency should always be considered as a serious symptom, for although the anemia itself rarely is serious, it may indicate the presence of serious pathology."

The hemolytic streptococcus groups are factors in production of anemia, though strictly the destruction is more by fragmentation than by hemolysis and

can be hypoplastic. Scarlet fever perhaps leads the acute infectious diseases in causation of severe anemia.

"A prolonged anemia may be a complication of diphtheria," quoting Mitchell.

Pertussis does not generally show anemia but may be complicated by hypoplasia which may go to the aplastic state.

Chorea may have a coincident anemia. The cardiac murmurs may be dependent on the anemia; they may be functional or temporary or be the result of a developing endocarditis: (Mitchell). Thus anemia should be first ruled out.

Hubbard and McKee comment: "It is a matter of common clinical observance that anemia may accompany the active phases of rheumatic fever." The mechanics are controversial here. As the infection subsides, the blood levels tend to return to normal. Therefore the presence of anemia may often be an indication of continued activity of rheumatic fever.

Dubois states: "An increased basal rate may be noted in severe pernicious anemia which changes toward normal after remissions induced by liver therapy." This type of anemia is rare in childhood. Consistent basal rate variations are not found in other types of anemia. Parsons of England and Wright of New York comment thus: "Severe anemia, especially if chronic, is recognized as a cause of myocardial damage, the pathologic changes generally conceded to be the result of oxygen starvation." They regret that only a few accounts of electrocardiographic abnormalities associated with anemia have appeared.

Prematurity presages anemia; the more immature the infant the greater the degree of anemia at the twelfth week. The anemia of prematurity is but an accentuation; the normal full-term infant has the same tendency for fall in blood level in the first three months. Prognosis for both is good if weight gain is satisfactory.

Celiac disease may exhibit iron deficiency, the result of faulty iron absorption, manifested during period of failure to gain in weight. (Parsons).

Operative procedures producing intestinal shunts may interfere with iron absorption and result in hemoglobin deficiency or lowered red blood levels or both.

Since we have become so vitamin conscious two will be mentioned. Vitamin C and D deficiencies often predicate con-

current anemias. Iron is of no avail if these particular vitamins are not supplied. In passing it might be reemphasized that doses of iron in children are not proportionate to adults as to weight comparison. It has been repeatedly found that they need from one half to full amount of iron as given to adults, preferably between meals.

In children past infancy most secondary or symptomatic anemias are of infectious origin. Prematurity, chronic nutritional disorders, rachitis, insufficient iron intake, poor hygienic conditions, can be predisposing and aggravating factors. Then the infectious states superimposed, "put the peak-load on the dynamo," to use an engineer's term. Infection causes anemia by producing, through toxins, a hypoplastic state, even a definite aplasia, or pathologic cell destruction occurs. Blackfan states that anemia due to infection may mimic every known type of primary anemia. The child may or may not have been anemic before. Diphtheria, malaria, syphilis, pyelitis, and suppurative processes may cause various blood deficiencies. Chronic bone infections frequently show anemic states. The syphilitic toxins seem often to have a predilection for the bone marrow (Cooley). We cannot accurately classify a definite type of syphilitic anemia. Bone and visceral tuberculosis have quite a depressant effect on the bone marrow. Normal hemoglobin values are frequently found in patients with active miliary tuberculosis (Kracke and Garver). Chronic pyogenic infections usually cause anemia of many microscopic pictures. The character of infecting organisms is probably the factor here. A slight or moderately severe anemia is likely to eventuate from chronic middle ear infections, accessory sinus infections, or bronchiectasis. Cooley comments: "There is a noticeable absence of important anemic manifestations in the course of common acute infection of childhood. Pneumococcic infections, even when prolonged, do not often have any marked effect on hemopoiesis unless complicated by suppuration as empyema or abscess." Measles, pertussis, and tonsillitis may change the hemoglobin values in one child in a family and not another; to me a hematologic mystery.

Chronic osteomyelitis tends sometimes to red blood cell destruction even to produce the type of aplastic picture seen in sepsis.

A majority of the anemias associated with infections are the result of damage to the bone marrow, rather than injury to the circulating cells, and are, therefore, myelopathic. The demand for blood cells exceeds the supply, and anemia develops.

Cooley's term, "pseudo-anemia" can be applied to the layman's frequent reason for bringing a child of school age to the physician. Here we note pallor. Transparency of ear lobes and pallor of mucous membranes do not predicate anemia, lacking support of blood examinations. It can happen in older children, for example, in severe nutritional disturbances sometimes with infections. Some think it is a disturbed relationship between vagus and sympathetic; others to underdeveloped skin capillaries; still others to relatively cardiac insufficiency in growth period. The signs are more as a warning against false deductions.

Parsons and Smallwood state: "As a rule infants and children do not exhibit symptoms until an anemia has progressed to a severe degree. Prominent physical findings are heart murmurs, tachycardia, elevated temperature, and in severe cases, heart failure and edema. Purpura and hemorrhage are prominent manifestations when the blood platelets are diminished. Irritability, lethargy, sleeplessness, and restlessness may be the first signs of an anemic state in a child."

Just as we are "appendicitis-minded" or "coronary-minded" so should we be with anemia in children. If the circulating blood cells are deficient, quantitatively or qualitatively, all organs and systems may be affected. One or another organ may be strikingly disturbed in function as to call primary attention thereto, excluding the underlying causative factor of anemia. Is not the crisis of hemolytic jaundice a fair example? Thus anemia as a diagnostic entity may infiltrate through many of Davidson's stated number of 307 pediatric diseases or conditions facing the clinician, of which 158 are common and 149 rare. It should be emphasized, however, that generally infant and childhood anemias are not primary blood dyscrasias. Rather they are mostly signs on the diagnostic road as a challenge to reach the goal of etiology. Perhaps most will fall under the three broad divisions of Parsons: 1. Acute and chronic infections; 2. Inadequate intake of iron or store of

iron; 3. Interference of absorption or utilization of iron. If this rough classification can be our "Pillars of fire and cloud" a larger percentage of children seen in ordinary course of practice might be better understood and treated.

LABORATORY

Laboratory suggestions will be in telegraphic style. Careful history taking and physical examinations should precede and indicate microscopic work. Troublesome decisions often arise as to study methods in hematology. Perhaps the so-called "complete blood count" is too often neglected, though not the scientific "all in all" of blood states. It is still indispensable among our medical Lares and Penates.

Normal hemoglobin estimates and red and white counts vary physiologically as the infant ascends in age showing a definite norm for days, months, or years. The differential count presents such variation in age groups and disease entities that Davidson's list is referred to only in passing.

Study of blood films, fresh and mixed, is a valuable routine.

Nucleated red blood cells are normal the first day of life, later common in secondary anemias.

Platelets or thrombocytes are reduced in arsphenamine poisoning and prolonged infections; increased in secondary anemia and bacteremia.

Both bleeding and coagulation time are increased in hemorrhagic diseases.

Sedimentation rate is usually more rapid in children. It is reduced in dehydration, the first week of pertussis, and in rheumatic fever. It is increased in factors of tissue breakdown such as infections, fractures, and neoplasms. (Davidson.)

Musser and Wintrobe enhance the "reticulocyte count" as surest evaluation of activity of the hematopoietic system. Joseph adds: "The advantage of the reticulocyte count is that we have a more exact measure of the amount of regeneration and we are independent of the vagaries of stains."

Wintrobe regards hematocrit determination of the volume of packed red cells as of distinct value in recognition of macrocytic types of anemia such as pernicious anemia and useful in differentials of other types.

An excess of bile pigment in the blood stream indicates obstruction to normal

secretion of bile, damage to liver cells, or excessive blood destruction, again quoting Wintrobe.

All this means the obvious thing: Etiology and differentiation of anemias require thorough clinical and laboratory study. Musser and Wintrobe advance bone marrow biopsy in difficult cases before death makes diagnosis merely of scientific interest. Osgood stresses the value and simplicity of the examination of marrow obtained by sternal puncture. Osgood and Marr state that sternal punctures are especially valuable in differential diagnosis of obscure anemias in elucidating the cause of enlargement of the spleen and lymph nodes, and, of most value of all in the aleukemic anemias. Kracke and Garver think that sternal biopsy should be practiced with greater frequency.

Cooley adds that X-ray studies of bone can be of considerable value.

CONCLUSIONS

1. That anemia of some type may be the diagnosis rather than one of some organ on which we are concentrating.

2. That in evaluating hematology that bone marrow states are a triad—different in the three broad age groups of infancy, childhood, and adult years.

3. That in many acute and in all chronic infectious states, blood study should be the sine qua non (the indispensable condition) of examination.

4. That in the background of many gastrointestinal disturbances may be found a hitherto unthought of anemic state.

5. That in cardiac studies, pathologic hematology must be excluded before pure cardiac diagnosis is made.

6. That blood work in acute rheumatic fever is indicated both as a measure of possible complication and as to remission.

7. That the pallor of school children is not pathognomic of anemia as abnormal blood pictures are not always found. It is usually a pseudo-anemia.

8. Various surgeons have noted that children in ratio to adults can less afford to lose blood from trauma or surgery. Hence, pre and postoperative blood study will project prognosis more accurately and transfusions, if necessary, hasten convalescence.

9. The anemias of infancy and childhood are by no means confined to the field of pediatricians. They can be projected into and confound many cases of

physicians in other fields who have to deal with the age limits under twelve to fifteen years.

10. "Many of the misunderstandings and discrepancies in diagnosis are due to our nomenclature, which is most confusing, and many of our terms are ambiguous," states Robinson of Texas. In view of prevalence of anemia the study of etiological factors in the child is more vital than argument on terminology and classification.

TREATMENT OF VARICOSE VEINS AND ULCERS OF THE LOWER EXTREMITY

D. G. MILLER, JR., M.D.

Morgantown

The problem of varicose veins and ulcers of the leg is a real one in this country. There is hardly a one of you present that cannot call to mind several patients in your practice that are disabled or severely handicapped by varicose veins and their sequelae. Many of these patients would be self-supporting if they could be cured. This condition is more prevalent among the so-called "lower third," who can ill afford loss of time or income, or prolonged treatment. Douglas conservatively estimates the preventable loss of income in the United States from leg ulcers as being three million dollars per year.

The plan of treatment which I propose to describe is neither radical or expensive, and not new, although it has been applied to far too few patients. This plan may be carried out by any physician in his office, with the exception of minor surgery, which is best done in a hospital but with a very short stay. In order to illustrate, I am compelled to borrow from Dr. Beverly Douglas of Vanderbilt and Dr. James Kirtley of the Haggard Clinic. At the time I treated some twenty-five patients by this method I made no photographs and no longer have access to the clinical records. My series of patients came from the Alms-house Out-patient department in a large city, and the results were as favorable as those which I will show.

ANATOMY: The venous anatomy of the lower extremity consists of two sets of

veins, i. e. the deep and superficial. The deep veins are placed among the muscles of the leg and thigh, uniting to form the deep femoral vein, which enters the pelvis under Poupart's ligament. The superficial veins lie in the superficial fat. The long, greater, or internal saphenous vein, which arises in the dorsal venous arch of the foot passes upward over the internal malleolus, along the internal border of the tibia. It then crosses the medial to the internal condyle of the femur, after which it passes along the inner and anterior aspect of the thigh, over Hunter's canal, and terminates at its junction with the femoral through the oval window. The short, lesser and external saphenous vein collects blood from the further aspect of the leg and heel. In both superficial and deep veins the backward flow of blood is prevented by many sets of valves, usually distal to a tributary. Most of the valves are bicuspid, although some are unicuspid. The sapheno-femoral junction is protected by a tricuspid valve.

PHYSIOLOGY: The function of the veins is the return of the blood to the heart. This at times is partially accomplished by gravity; partially by the negative pressure originating in the "sucking action" of respiratory movements, but mostly by the contraction of the muscles, which force the blood from valve to valve during any sort of movement.

ETIOLOGY: I will say little about the etiology of varicose veins because little is definitely known, and because, as a group, we are more interested in therapy than in abstruse discussions. The most important factor in the valves becoming incompetent is the presence of congenitally weakened vein walls, which give way under strain of hypostatic congestion, and other factors which increase intra-venous pressure. Infection plays a greater part than is commonly recognized; viz., varicosities following typhoid fever. A hereditary factor is present in at least seventy per cent (70%) of the cases. Pregnancy is the active cause of the development of varicosities in many cases, a possible endocrine factor being suggested.

After the superficial veins have become dilated there is not only stasis in saccules, but an active back-flow from the femoral to the varicose vein by way of communications with the deep veins, to begin the cycle over again.

DIAGNOSIS: Diagnosis of varicose veins

is easily made by inspection and light palpitation, with the patient standing.

TREATMENT: For years it has been realized that any treatment must decrease the stasis and promote the return of the blood. The first effort in this direction was bandages which have evolved into the modern elastic stocking and Ace bandage. Both are useful as a temporary measure, especially in preparing the patient for other treatment, and for mild varicosities during pregnancy, which often clear entirely after partuition, providing support is given the veins during the pregnancy. Elastic stockings and bandages accomplish their results by the compression partially preventing back-flow, and by giving the muscles more to contract against.

Often we find some patient who has struck upon this elastic bandage theory himself, arriving at the office with the leg wrapped in strips of rubber from an old inner tube. Although the elastic bandage or stocking does promote better circulation, and offers some mechanical support and protection against injury to the devitalized tissues and vein walls, it must be constantly worn when out of bed, is fairly expensive, and women especially rebel at the cosmetic effect. This method of treatment never cures, and to some extent the damaging effects of stasis continue to progress. I have never known a patient to hemorrhage, which is the most urgent and alarming complication of varicosities while wearing an elastic stocking or bandage.

Next in treatment came injection of the veins with a sclerosing chemical, 50% dextrose, quinine and urea hydrochloride, sodium morrhuate and others of like nature have all been used. Then with the patient standing, and for the convenience of the operator it is best to have him on a stool or table, the larger varicosities are injected with 2 to 5 cc of the sclerosing agent, usually quinine and urea hydrochloride or sodium morrhuate, using a fine short beveled needle. Immediately after removing the needle from the vein, a gauze or cotton sponge is firmly secured over the site with adhesive tape. Usually one vein is injected on each leg at a treatment and at weekly intervals. This method of treatment gives excellent results in those patients whose incompetent valves are all below the knee. In patients with varicosities extending above the knee, the condition is either not helped or returns in a few months from dilatation of col-

laterals. Recently Shelly has reported anaphylactic shock in patients with several fatalities, following injections of a sclerosing chemical. In nearly every case this drug has been used before and some time had elapsed before the reaction-provoking injection.

Various operations have been used. Vein stripping was among the first. In this operation an incision was made from the groin to the ankle down the inside of the leg. The vein was then stripped out. Good results were obtained, but prolonged hospitalization, the necessity for a general anesthetic, and the fact that the knees rubbing against each other often caused the scars to break down, led to the discard of this procedure. Modifications were tried, such as working to the knees from above and below. This too, required long hospitalization and general anesthesia and the aged and poor risks were excluded by the attendant dangers.

A few years ago ligation of the internal saphenous was tried. This operation was found to be successful, almost non-shocking, to require only local anesthesia, short bed rest and hospitalization of only 48 hours at the most. If the collaterals and tributaries of the saphenous are ligated at the time of operation it is highly successful. In the larger clinics, the technique has been refined, during the past 5 or 6 years, into about what I will describe.

If the varicosities are all below the knee, with competent valves above, injection as described, together with an elastic bandage to be worn during, and for about a month after completion of the course, is used. If the varicosities extend above the knee, and the deep venous circulation is intact, ligation of the saphenous, together with collaterals, followed by retrograde injection at operation, and later injection from below until all are obliterated, is the practice. In a few cases incompetent communications with the femoral circulation will be found. These must be isolated and ligated.

A number of tests have been devised to show adequate deep venous circulation, all being named after the originator, notably Von Perthes and Trendelenbergh. However the necessary information can be easily gained by examining the leg while standing, and then applying a tourniquet high on the thigh. This is applied just tightly enough to interfere with the superficial venous flow. The patient

walks about rapidly for a short time, and if the varices are less prominent and tense or no more so, the deep circulation is adequate and the patient is a candidate for operation. A modification of the test is to bandage the leg tightly and if the patient can walk ten minutes without pain, the deep circulation is satisfactory. The presence or absence of incompetent communications between the femoral and saphenous systems is determined by placing several tourniquets about the thigh and leg at different levels, and looking for back-flow.

In clean, thin persons the operation can be an office procedure, but obese, rather dirty individuals must be hospitalized. (I wish to remark that all such procedures are properly done in the hospital, but in rural practice, where fear of hospitals is rampant, it is necessary to compromise.) Before the operation, an Ace bandage is applied lightly from the ankle to mid thigh. (The loose or empty vein technique). A femoral prep is used, the patient draped and the femoral artery located by palpation. A wheal of novocaine made, and the skin infiltrated for 6 or 7 cm. I prefer to make the 5 cm. incision vertically but a number prefer to parallel Poupert's Ligament. Both incisions begin about 1 inch below and lateral to the symphysis pubis. The saphenous is located and isolated at the oval window, where it enters the femoral vein, and is freed as far down as the incision allows, all collaterals and tributaries being double ligated and cut. The juncture with the femoral is clamped and cut and the distal stump ligated with braided silk or heavy cat-gut. The vein is then injected, through a fine, blunt-tipped needle, with either 5 cc of sodium morrhuate in 20 cc of blood or 25 cc of 50% dextrose. I prefer dextrose, because any leakage is easily irrigated from the wound with saline, while the other chemicals are not. I have operated three of these patients who had such friable veins, that it was necessary to tie a small catheter into the vein in order to accomplish the retrograde injection. After the retrograde injection the vein is ligated below the site and the intervening portion removed. Hemostasis is obtained and the wound closed. A small dry dressing, protecting from the urine and perspiration of the groin suffices. If the patient has incompetent communications with the deep circulation, these are isolated and ligated at the same time, also under local anesthesia.

After 24 hours an Ace bandage is applied to the lower leg and the patient encouraged to walk, but not run, or climb stairs. He may be discharged from the hospital. The retrograde injection results in a firm thrombus to the knee and often below, at times as far as the ankle. After a week or ten days the injections from below are begun.

I purposely left mention of the varicose ulcer until the last, for all recognize that to obtain healing the varicosities must first be obliterated. It is suggested by Douglas that the clinical course of a varicose ulcer is as follows: "Varicose veins, with or without phlebitis, passive congestion, edema, minor injury, ulceration, secondary infection, cicatrization of edge and base, further impairment of circulation with unstable healing or expansion of the ulcer." With the primary cause removed, the ulcer will often heal while the post-operative injections are being completed.

If the ulcer does not heal following this procedure, several treatments are available. This also applies to ulcers from other causes, provided the primary cause is removed, i. e. lues. In cases of extreme scarring the whole ulcer should be excised to the fascia. If the tibia is denuded of periosteum, several holes should be drilled to allow the formation of granulations. Some form of skin graft is then applied. Over joints probably a full thickness graft is best. Over other areas the punch, sieve, or pinch graft may be used. Pinch grafts are usually satisfactory, and may be done with local anesthesia, either in the office or the home, in the case of the general practitioner with patients burdened with hospital phobia.

For ulcers, without excessive scarring Elastoplast is best used. This is specially woven cotton bandage, with a coating of para-rubber and zinc oxide, whose exact formula is secret. It will stretch 25% of its length and return to normal. When used the ulcer is first cleaned and freed from gross infection by bed rest, boric soaks, gentian violet, etc. Then the leg is shaved, cleansed with alcohol and ether, and the bandage applied. The bandage is cut so that two strips 6 or 8 inches long may be applied, lengthwise over the ulcer. This prevents crawling of the spiral turns, and cutting if the edge slips. The bandage is applied with the heel resting on the edge of a chair or stool beginning with a turn about the foot and starting up leg, just as a figure-of-eight is applied

to the ankle. Each turn overlaps one-half to one-third. Just enough pull is applied to little more than stretch the bandage easily. This approximates the 6-pound pull originally recommended. The bandage is spiraled to the largest part of the calf taken to just below the knee in a long spiral, brought down in overlapping spirals until the leg is covered and secured with adhesive tape.

Healing is promoted by the pressure which discourages exuberant granulation tissue, or proud flesh, and by the pull upon the edge of the ulcer.

The Elastoplast also sterilizes a moderately infected ulcer, due to the prevention of contamination by the dressing slipping to adjoining skin edges, and by confining the secretions to the wound, where more anti-bodies collect. As the bandage is semi-porous when stretched, excessive secretion can escape, and may be washed off and the bandage dried while in situ. Ulcers will heal just as rapidly with Elastoplast treatment, as a fresh wound of equal area, treated under ideal conditions. In many cases the curve of healing of the varicose ulcer under this treatment, exceeds that of the ideal curve for wound healing.

Elastoplast is without equal in the patient with extensive ulcerations, who has in addition, incompetent deep circulation. These patients are often as disabled as if they had advanced heart trouble. I have used it for over five years in an obese farmer, who had been more or less incapacitated for years due to bilateral varices and ulcers. After 4 weeks he was able to again resume his work, and now walks as much as he wishes. As elastoplast exerts constant pressure it actually reduces elephantiasis, although the treatment may require years.

In conclusion I have described the treatment of varicose veins by injection, by the ligation of the saphenous with retrograde injection, and the treatment of ulcers with elastoplast. These methods will give your patients almost one hundred per cent cures, and do much to restore them to useful and comfortable economic positions. It is my experience that the average patient will spend as much in 18 months for palliative measures for his ulcer, as the ligation treatment will cost him.

DISCUSSION

J. Farra Van Meter, Lexington: This very practical discussion which Dr. Miller has given us emphasizes and reemphasizes the need of treating varicosities by a method which will allow the patient to be up and about. As he has said, these conditions occur most frequently in the lower classes of individuals with whom it is highly important that they be able to get out and work, if possible.

The very widespread acceptance of the injection treatment of varicosities indicates its success. I am glad the doctor has shown us these slides. I think we always get more out of lantern slides than we do out of the most expert discussion without them. Certainly the treatment of ulcers is an important factor with these individuals. Anyone who is active in a city clinic realizes that chronic varicose ulcer is one of the most common forms of disability which we see, and it is a source of great trouble, great discomfort, and is a real problem for this class of patients.

The treatment of these, of course, is necessarily combined treatment of the ulcer itself plus treatment of the varicosity associated with it, which usually exists. The solution used for injection is optional. Two or three, as he stated, are available. I rather think the majority of us use the sodium morrhuate solution, although others have been used very successfully. As the Doctor has shown, injection treatment above the knee must be used more cautiously and must be used expecting less gratifying results in the end; therefore, the wise selection of surgery combined with injection in these cases above the knee is the procedure of wisdom.

I think a real problem presents itself in varicose veins in the pregnant woman. I was impressed, as no doubt many of you were, with an article by Sigler of Jersey City in the American Journal of Surgery, in which he reports a series of 1,017 cases. Possibly we don't realize how frequently varicosities occur or present themselves as a real problem in the pregnant woman. Since reading that article and reviewing the literature, I have looked upon the injection of varicosities in the pregnant woman with a little more courage than before. He emphasizes that it can be done quite safely, the results are gratifying, the number of injections are usually less than in the non-pregnant woman, and the risk of interrupting the pregnancy is quite small; furthermore, the results as regards condition after pregnancy is completed are very gratifying. Of course varicosities in the vulvar region in the pregnant woman are a great disability to her and constitute a condition that must be dealt with very cautiously. Injection in those parts is carried out with a great deal more discomfort to

the patient, as a rule, and therefore must be done with the most careful technic.

I was impressed with the fact that Sigler contends that varicosities in the pregnant woman are not due to increased pressure on the pelvic vessels, but rather he feels to some lack of hormone in the individual. That is a problem, of course, which has not been completely solved.

It would be wrong to discuss this matter without realizing that while injection of varicose veins is a procedure which is done safely in the vast majority of instances, it is not entirely unattended by risks. Phlebitis, peri-venitis, thrombophlebitis and pulmonary infarcts are complications which one may see occasionally. I had this brought home to me very graphically some few months ago in a very healthy male twenty-four years of age with a moderate degree of superficial varicosities below the knee on each leg. These were injected in the usual manner without any thought of any complications. Ten days later, however, he had developed considerable inflammation on the left side, none on the right. This went on to pulmonary infarct, to thrombophlebitis up the leg, and into the pelvic vessels I am sure by the discomfort which he has suffered. He got an abscess on the left side at the site of the injection which had to be drained, all of which makes one wonder whether there was a break in technic or whether there was a peculiar sensitivity to the solution used. This young man is making a slow recovery. I feel he is out of danger, but it takes only one case like that to make you realize that one cannot go into this procedure absolutely fearless, that the technic, as Dr. Miller has described, as regards injection must be done carefully and with meticulous care, preventing, as far as possible, any leakage of the substance into the tissues, because he will certainly get increased difficulty there.

R. O. Joplin, Louisville: I enjoyed Dr. Miller's excellent paper and slides. In our clinic, at City Hospital, Louisville, at which I have been connected for eight years, we treat from twenty-five to thirty patients a week, and in that time we fortunately have had no serious accidents or deaths. There are one or two points I wish to bring out, first, in connection with reactions. We have had approximately six, but only one was severe. This patient was unconscious and in shock, and looked as though he would die; however he recovered and needless to say we have given him no more sodium morrhuate. Second, we inject our pregnancy cases up to a period of eight months, usually treating the larger veins and leaving the less severe type to be treated after delivery. Many of these subside and do not need subsequent treatment. Third, in regard to ligation, we have had one hundred

and fifty cases and our results have been very gratifying. By this method we are able to cut down the injections at least fifty per cent and the final result of our treatment is much better and more lasting than those cases which we formerly treated before we began the use of ligations. We only resort to operation in the more severe type of varicose veins. Fourth, we have used a great deal of elastoplast bandages and have cured many ulcers by this method in conjunction with injection treatment. In many cases in which we have failed by the use of the bandage we have subsequently been able to heal by the use of repeated unna paste boots. This latter procedure, I feel, is not used as frequently as it should be, because of the time and effort it requires to apply them.

AUTO-TRANSFUSION, A LIFE-SAVING PROCEDURE

BERNARD J. BAUTE, M. D.

Lebanon

The idea of introducing into the patient's veins the fluid blood poured into serous cavities as a result of trauma or ruptured ectopic gestations was first suggested in 1914 by Dr. J. Theis, a German. Quite an extensive literature has developed in Germany since the publication of the original article but very little has appeared in British or American periodicals on the subject.

It has been a common observation in cases of intra-abdominal hemorrhage that there is a large quantity of fluid blood mixed with the dark colored clots and that this fluid blood probably due to its admixture with peritoneal exudate does not clot readily. The idea of Theis was to filter this blood of its clots, mixing it with sodium citrate and reintroduce it into the veins of the patient during the course of the operation. Theis later mixed it with saline solution and finally used the whole blood without any vehicle, and his conclusions were that it made no difference which method was used.

Many cases of ruptured ectopics or other severe hemorrhages require blood transfusions during the course of the operation. This invariably means a considerable delay while the donor with a suitable blood grouping is found and also in the larger cities, an expense. The patient already has a large amount of her own blood available in her abdomen. There

can be no question of unsuitable blood grouping, or of using blood from an unsuspected syphilitic, so there need be no delay, no danger, and no expense. And it always has seemed to be a mistake to waste such valuable fluid in a patient who requires it so urgently.

The technique is simple. Immediately before opening the abdomen, a vein is selected, usually the antecubital, and this is punctured with a short bevel, 15 to 18 gauge needle to which is connected a Salvarsan tube, into the end of the tubing of which is a three-way stop-cock. Normal saline is or is not, according to the preference of the surgeon allowed to be flowing slowly into the patient's vein. The abdomen is then opened and the fluid ladled into small graduates which contain sodium citrate solution, this is gently mixed and then filtered through about eight thicknesses of gauze into the Salvarsan tube. The nurse keeping the solution in the tube warm by wrapping hot towels around the tube. The only reason for having a three-way stop-cock in the assembly is in order to re-infuse the blood more quickly, because in some cases of intra-abdominal hemorrhage re-infusion by gravity alone would be too slow. We prefer to ladle the blood rather than sponge it because it is so much quicker and too there is less danger of destroying the red cells, although in our first two cases this was the method used.

Schaefer, quoted by Burch, has made a very interesting suggestion for using extravasated blood, which may possibly have been contaminated, as blood is liable to do which has remained in the abdomen for a considerable length of time. He collects the blood and uses it as a rectal drip, substituting it for the saline-glucose-brandy mixture commonly used. The author has had no experience with this method. I have had some experience though with supposedly intra-abdominal transfusion in infants, and have found blood in the abdomen a week after, when I attempted to give a second transfusion by this method. Hayem and co-workers have claimed that blood injected into the abdomen was completely absorbed at the rate of .5 to .7 cc. of blood per hour in 1 kg. test animal. Calculated for a patient weighing 60 kg. this would average 36 cc. per hour. This would be very poor help in an emergency condition, so therefore the peritoneal method may be regarded as futile in the acute danger of

bleeding to death, and in my experience futile or practically worthless as an ordinary method in non-emergency cases in infants as is commonly recommended in some text books.

CASE REPORTS

Case 1. Mr. J. H. P., age 42, entered the Baute Infirmary, October 3, 1934, in a state of shock; he had been seen at his home approximately one hour before, when the diagnosis of intra-abdominal hemorrhage, probably caused by a ruptured liver was made. The patient had fallen from the barn loft and had landed squarely flat on his back.

The operation was performed under ether anesthesia by the writer. An upper right rectus incision was made, and upon opening the peritoneum there was a welling up of free blood. The greater part of this blood was hurriedly mopped up with large packs and squeezed into graduates containing sodium citrate. On retracting the hepatic flexure of the colon and duodenum, blood was seen gushing from a rent in the liver which was approximately five inches in length and of unknown depth. Liver suture was deemed unfeasible and the hemorrhage was controlled with a large pack. During the operation the anesthetist was unable to obtain the pulse, which quickly became perceptible and of fair quality at the completion of reinfusion of 800 cc of blood that had been salvaged. The following morning, the patient was given 500 cc of additional blood by direct method. His convalescence was quite stormy due to continuous nausea and vomiting, which promptly ceased after removal of the pack five days later. He was discharged in good condition on October 24, 1934.

Case 2. Master J. A., age 11, was admitted to the Infirmary January 25, 1935 complaining of severe abdominal pain accompanied by nausea and vomiting. Onset followed hitting a telephone pole, the previous afternoon while sleigh riding, the pole striking the lower left side. Patient was carried to a physician's office who strapped the abdomen. The patient became worse during the night and early the next morning was seen by another physician who referred the patient to the hospital. Physical examination revealed a board-like rigidity of the abdomen, with the greatest amount of tenderness and rigidity in the right upper and lower left abdomen.

Temperature 99 degrees, pulse 120 and very thready. Respiration shallow and approximately 30 per minute. A diagnosis of intra - abdominal hemorrhage was made, which was thought to be of liver origin because of the greater pain, tenderness and rigidity of the right upper abdomen.

On opening the abdomen, there was a gush of blood similar to the previous case and the same technique was followed, with the exception that the liver was found normal and the source of the hemorrhage was due to a ruptured spleen. After the pedicle was clamped, 600 cc of the recovered blood was reinfused. The spleen was then removed and was found to have several large rents, one completely dividing the lower third of the spleen. Later that same evening the patient was given 500 cc. of additional blood by the direct method. The following morning he was in good condition, and convalescence was rapid. He was discharged from the hospital on February 8, 1935.

Case 3. Mrs. R. G., age 31, was admitted to the Baute Infirmary, 2:30 A.M., March 15, 1939, in acute shock, extremely pale, pulseless, and dyspnoeic. Patient had had one other pregnancy seven years prior. Last menstrual period was seven weeks previous and during the day before admission to hospital, had suffered with crampy pains in lower abdomen accompanied with some spotting. Pains had become worse and she had sent for her physician, who rushed her to the hospital.

Because she was pulseless, she was given 400 cc. of acacia in 5% dextrose, while she and the operating room were prepared. The abdomen was opened with a lower mid-line incision, and the free blood quickly ladled up and mixed with citrate, and which was returned to her by gravity while the rest of the operation proceeded. The ruptured left tube was removed and the abdomen closed without drainage. The rest of the blood was then given, altogether a little more than 1,000 cc being salvaged and reinfused. She left the operating room with a pulse of 96 and good volume. Her convalescence was very smooth, she leaving the hospital nine days later on March 24, 1939.

CONCLUSIONS

Auto-transfusion is indeed a life-saving procedure, no elaborate set-up is required, and the operation should be so planned by the surgeon when hemorrhage is suspected.

DISCUSSION

Archibald M. McKeithen, Louisville: This has been a very interesting and timely discussion of quite an important subject, and one that is often not taken advantage of as it should be. By using auto-transfusion we will quite often decrease our mortality and morbidity in these cases where it can be used. In any case in which there is bleeding into the serous cavities, especially the abdominal cavity, which is not contaminated by infection or malignancy, and I think this blood should never be discarded but always returned to the patient, even if there are only comparatively small amounts. There is never any untoward reaction following the use of auto-transfusion, no foreign protein reaction, and the availability of the blood makes it the method of choice certainly.

One point which I would like to stress, can be illustrated by citing a case report, is preferably not to start any intravenous solution going before the abdomen is opened and you have the source of bleeding under control. I recall one patient very vividly, with a ruptured ectopic pregnancy, who was in extreme condition and we decided to give her a transfusion and then operate upon her immediately. Transfusion with 500 cc. was given, and before we could prepare the abdomen and open it she was dead. This had raised the blood pressure and allowed her to bleed out completely.

Another illustrative case is one that I had approximately a year ago of a ruptured ectopic. When she was put on the operating table we did not feel the pulse and no blood pressure could be determined at all. As soon as the peritoneal cavity was opened intravenous glucose was begun, we recovered from the abdomen 1,600 cc. of liquid blood in addition to large amounts of clot. This was given back to the patient as rapidly as possible and by the time the operation was completed her blood pressure was 106, the pulse rate was 90, and good volume.

A rather spectacular case was one in the City Hospital in Louisville with a ruptured spleen, where 3,000 cc. of blood was recovered from the abdomen. This was not all at the same time. It seems there was some difficulty in stopping the flow of blood, and part of the blood was given into the vein, bled back out, and was reinfused again.

Irvin Abell, Louisville: I rise to emphasize the very splendid points made by the essayist and by the discussor. There is one variation in technic which causes me to speak in addition to what has been said, and that particularly in such cases as mentioned by Dr. McKeithen where the patient is apparently bled out, pulseless, and where no blood pressure reading can be detected. In one or two such instances we have opened the ab-

domen under a local anesthetic, secured blood with an unusually large asepto-syringe possessing a rather large caliber to its beak to the amount of 500 cc. and then with this started the transfusion. Anesthetic was given, preferably cyclopropane, incision of the abdomen was made, and the bleeding point controlled, and the remainder of the blood collected for further transfusion. I think possibly in such cases it does give you a slight increase in safety in that you do not give the anesthetic until the transfusion of blood has been started, in that the incision in the abdomen has been made under a local anesthetic so that the source of bleeding may be immediately reached and controlled as soon as the transfusion is begun.

The essayist mentioned the use of acacia solution. While possibly not entirely in line with his paper, I would like to emphasize the value of this in patients brought in suffering severe blood loss which has been external, in other words lost before coming to the hospital, consequently none available for use. As he has stated, the time consumed, even granting that you have donors in the hospital, in cross-matching the blood of the donor and the recipient, is oftentimes of vital importance to such patients. Here the administration of acacia solution is valuable; it is provided in a very convenient ampule of 50 cc. which when mixed with 450 cc. of saline solution gives a 6 per cent solution and a 0.9 per cent solution of saline. This is readily kept in the operating room and consequently is available at all times. It has a much better effect than glucose and saline. In a patient in profound shock the stomata between the cells of the vessels permit the fluid to pass out almost immediately. The acacia solution maintains the viscosity of the blood and consequently causes a rise in pressure and keeps up the vital functions.

There is one caution, however, which I would like to urge, and it is that in the patients in whom one uses the acacia solution, by all means get the samples of blood for typing and cross-matching before the acacia is given. The acacia is deposited in the red blood cell and we have found extreme difficulty afterwards in finding satisfactory donors because of its interference with cross-matching tests.

B. J. Baute (in closing): I wish to thank the discussants, particularly Dr. Abell for the mentioning of acacia. Of course today with all of the blood banks in most of the larger hospitals there may be some argument against re-infusing the patient's blood back again, but still I don't see the necessity of letting this precious fluid go to waste.

SULFAPYRIDINE: ITS INDICATIONS, PHARMACOLOGY, UNTOWARD EFFECTS AND METHODS OF ADMINISTRATION

J. MURRAY KINSMAN

Louisville

When sulfanilamide was introduced into therapy and found to be so effective in the control of coccal infections, notably the hemolytic streptococcus and the meningococcus, great hopes were entertained that it would also be effective in the control of the pneumococcus infections. These hopes, however, failed to materialize and the search continued for other chemotherapeutic agents which would have a more selective action on the pneumococcus. Due to the stimulation afforded by the discovery of the potency of the sulfonamide group it was natural that various other combinations using this group as their basis, should be tried. It was not long before success rewarded the efforts of investigators and sulfapyridine was discovered and tried in the laboratory. The success of this drug in treatment of pneumonia soon became apparent, and now its value in that disease is no longer a subject for laboratory discussion but is accepted universally. However, it is still not the "perfect drug," for people still die of pneumonia, and although everyone who has worked in this field admits that it definitely lowers the mortality rate, yet there are many who have yet to be convinced that it is superior to serum. Perhaps I should put it that it still has to be shown conclusively that it is superior to serum, for modern results with serum treatment in well organized and controlled clinics have been really very excellent. Nevertheless, the fact remains that serum can only be given to best advantage and safely where there are clinics and where the financial condition of the patient enables him to afford it. Since this is generally true only in the larger towns and cities, and not always then—the great mass of people in the country and in the smaller towns are still deprived of its use, so that if sulfapyridine can be shown to have only equal value with serum, then it will still remain the greatest boon to the medical profession since the discovery of sulfanilamide.

It is my purpose here to acquaint you

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with the most reliable statistics available concerning the value of sulfapyridine in the treatment of pneumonia, to discuss its value in other infections, both pneumococcal and of other types, to outline something of its pharmacology, to describe the best method of administration, to mention some of the untoward effects that one must be on the lookout for, and finally, to discuss possible future expectations in the way of sulfapyridine therapy.

CLINICAL RESULTS: There have already been a large number of papers reporting the experience of the various authors in the treatment of pneumonia. These papers deal with statistical studies of from a dozen or so up to three or four hundred cases. Uniformly, the mortality rates reported are under 10% excepting for the type III infections. One large series of one hundred cases had a mortality rate of 0%. By and large, however, the mortality rate for all pneumococcus pneumonias is in the neighborhood of 6%. This is a striking reduction from the mortality rate in untreated pneumonias of around 20 to 25% and the rate for serum-treated cases of around 12%. Many of the reports, however, bear evidence that the authors "rushed into print" and one has to discount many of the conclusions because of improperly controlled studies. There is one source of information which is—perhaps strangely, reliable, however, and that is the company which supplied the material to the workers throughout the country before the drug was put upon the market. Before the government would allow the drug to be dispensed, it insisted upon a thorough trial by reputable clinics throughout the country. The firm of Merck was licensed to manufacture and distribute the drug in this country. They supplied it to clinics in all sections of the country, with the explicit understanding, however, that the clinics were to report their results to them. As a result, the Merck laboratories are in possession of the most authoritative and most carefully controlled information in the country. They have been kind enough to allow me to quote their statistics here.

The Merck Company is in possession of figures from approximately 3,000 carefully controlled cases of pneumonia treated with sulfapyridine. The mortality rate of these 3,000 cases was 5.8%, the bacteremic cases being about 11.6% and the non-bacteremic cases about 4.6%. Of

the 3,000 cases, 2,665 had been carefully analyzed at the time my information was obtained from them. Every type of pneumococcus was represented. The highest mortality rate for the bacteremic cases was in types 16, 20 and 23, although this whole group included only five cases. The mortality rate for type III was 28% whereas that for types 4, 14, 16, 18, 19, 20, and 23 was higher. For the non-bacteremic cases, the greatest mortality rate was in type 28 where out of six cases 33.3% died. In this group the mortality rate for type III was 9.4%.

In the untyped cases, where the causative organism could not be identified, the mortality rate in 432 cases was 3.9%; of these cases, 110 were bronchial pneumonia, and 281 were of the lobar type, the remainder unspecified.

The company supplied us at the Louisville City Hospital with a sufficient quantity to use in 103 cases of pneumonia, this past winter and spring. Of these 103 cases, six died, a mortality rate of slightly less than 6%, which is in keeping with the statistics from the country at large. Of these six cases, one had advanced cardio-renal disease and it was not reasonable to expect any cure; nevertheless she was given sulfapyridine to give her the benefit of the doubt and that case is included in our figures.

These figures show, therefore, that sulfapyridine has a decided effect in reducing the mortality rate in pneumonia; there can be no reasonable doubt of that. Even if the effect were no greater than serum, yet as said above, its simplicity, relative cheapness, and applicability to all types of pneumococcus pneumonias make it preferable to serum for general use.

Other types of infections:

Pneumococcus Meningitis: There have been several favorable reports concerning the favorable effect of sulfapyridine in pneumococcal meningitis. We have had experience in Louisville with one such case, a patient of Drs. Spurling and Katzman, who recovered. On the other hand, it is only fair to state that there have also been unfavorable reports, one of which, a case treated in Louisville, has come to my attention. By and large, however, there is every reason to anticipate that in such cases we can expect better results than from the use of any other agent so far known.

Meningococcus Bacteremia: A report

of one case of cure of meningococcus septicemia has appeared in the literature. To this we are in a position to add another cured case—that of a girl who had had a proven meningococcal septicemia for a period of about six weeks, with recurrent fever and chills. Following the institution of sulfapyridine therapy, there were no more fever or chills, and she made a rapid recovery. So far as is known, no other cases have been reported. There is no reason to think that sulfanilamide would not have accomplished the same end, and as a matter of fact, it is probable that this drug would be the one of choice notwithstanding the fact that there are some workers who consider that sulfapyridine is equal to, if not superior to, sulfanilamide in meningococcus infections.

Meningitis: Some good results have been reported in meningococcic meningitis, though we have made no personal observations on this point. Long feels, as has been mentioned above for septicemia, that sulfanilamide remains the drug of choice in meningococcic infections.

Staphylococcus: There have been several reports of success in staphylococcal infections, including septicemia. However, as Long says, caution must be used in interpreting these reports in view of the well-known capriciousness of staphylococcus infections with their tendency to spontaneous cures. Nevertheless, there is increasing evidence that sulfapyridine may really be a valuable agent at times in these infections.

Gonococcus Urethritis: There have been several enthusiastic reports of cures in gonorrhea; many of these are based also on a follow-up observation of a respectable number of patients after a reasonable length of time. Several authors express themselves without hesitation as indicating that they consider sulfapyridine definitely superior to sulfanilamide in these cases. However, in view of the fact that in many instances the criteria for cure are somewhat open to question, it is probably better to withhold judgment concerning the relative value of the two drugs until a good deal more evidence has accumulated. Certainly, however, it appears at this time that sulfapyridine is at least as effective as sulfanilamide even if it is not more so. It has, perhaps, one other advantage inasmuch as the doses which have generally been administered, have been relatively small ones—small enough not to produce toxic symptoms.

Pelvic Disease in the Female: There have been scant reports of its value here, although two authors report good results.

Ophthalmia: Two cases have been reported of cure of gonorrheal ophthalmia in new-born babes.

Endocarditis: One case of gonococcal endocarditis has been reported as having been cured by sulfapyridine.

Hemolytic Streptococcus: There have been a number of reports of the value of sulfapyridine in infections with the hemolytic streptococcus but analysis of these reports indicates no superiority of sulfapyridine over sulfanilamide against this organism; and in view of the established place of the latter drug in infections with this organism, there seems no good reason why sulfapyridine should be used.

Streptococcus Viridans: Sulfanilamide has been proven to be notoriously without benefit in cases of subacute bacterial endocarditis, thereby being a great disappointment in this respect. When sulfapyridine was introduced, it was hoped that another streptococcus would "bite the dust." These hopes have not been borne out, however, although there is still some evidence pointing to the possibility that after all it may have some value in this dread infection. One case has been reported in which the temperature fell to normal following its administration. Two weeks later, however, it rose again and the patient died. At the Louisville City Hospital, we have given the drug to perhaps eight patients with this condition. They all died, but in one of them, the temperature fell to normal and the blood became sterile while under treatment. However, after this she developed congestive failure, with dyspnea, edema, etc.—a rather unusual occurrence in these cases—and died of heart failure, still with a negative blood culture and normal temperature. Our experience with this case leads us to feel that sulfapyridine offers at least a little hope in such cases, and it is my own feeling that in cases of subacute endocarditis it would be wise to put them on this drug as soon as the diagnosis is established, and to give them as large doses as they can tolerate. Certainly nothing else seems to offer much hope, and I think we can say that there is at least a little gleam of hope from sulfapyridine.

Granuloma Inguinale: There has been one case of this reported cured with sulfapyridine; bacteriology established the diagnosis.

No doubt sulfapyridine has been used in a great many infections other than those reported here without the results appearing in the literature. We are prone to neglect to report our negative results, so that it is reasonable to assume that in most of these other infections the results have been unsatisfactory, otherwise we would have heard of them. For instance, in Louisville, we gave it to a woman with a severe tularemia; in spite of it she developed a tularemic pneumonia and died. We have also used it in one case of typhoid fever without any beneficial results that we could detect. No doubt it has been used, or will be, in such conditions as undulant fever, influenza, and perhaps some of the common contagious diseases; but if it has been so used, I am not aware of it at this time. There is, however, one other condition where there is reason to think it may have a great deal of value, and that is in any pneumococcic infection in the respiratory tract other than pneumonia. Pneumococcic tonsillitis is by no means uncommon; I myself have had this infection, a pure culture of pneumococcus being obtained from my tonsils. This was before the days of sulfapyridine, however, so I had no occasion to observe its effects. It is also probable that many of the cases of bronchitis which we see every fall, winter, and spring may be of pneumococcal origin, even where there is no associated pneumonia or pneumonitis. Here again I can speak from personal experience, for last winter I had what "my consulting staff of doctors" called a capillary bronchitis, but what I suspect was a pneumonitis. After a low-grade fever had hung on for a week with no signs of letting up, I finally had my sputum typed and this showed almost a pure culture of type II pneumococcus. At once I took sulfapyridine and within twelve hours my temperature had dropped to normal and has remained there ever since—so far as I know. I am not prepared to say that I would consider it good practice to give every patient with an acute bronchitis sulfapyridine on suspicion that the

offending organism may be pneumococcus, but I will say that a doctor who does so shouldn't be severely condemned, and future developments may even show that he who does so is practicing better medicine than he who does not.

PHARMACOLOGY: Sulfapyridine is rather insoluble, dissolving in water to a very slight degree, and dissolving with difficulty in alkaline and acid solutions. This fact accounts for one of the greatest difficulties encountered in its clinical use — its erratic absorption. The amount of drug to be found in the blood stream after a given dose is absolutely unpredictable; all workers are agreed on this point. At the Louisville City Hospital this past winter and spring, we have studied this point extensively and our results are in absolute agreement with the work of others. From identical doses, the concentration of sulfapyridine in the blood stream at the end of four hours may be as low as 1.4 mgms. per 100 cc or as high as 9.6 mgms. per 100 cc. Moreover, the average concentration is apt to be as high from an initial dose of 2 grams as from an initial dose of 4 grams; and, as a matter of fact, in our work it was even higher from the smaller dose than from the larger. Table I illustrates this point. Now, sulfapyridine notoriously produces vomiting and it might be assumed that the above paradoxical situation could be explained on this basis. As a matter of fact, in our experience, vomiting occurred more frequently from the larger doses (67%) than from the smaller ones (45%); however it so happens that the blood concentration curves from the smaller doses where vomiting was less frequent, was higher than from the larger ones; moreover, the concentration was as high or even higher where there was vomiting than where there was not. Therefore, we cannot explain the difference in concentration following different sized doses on the factor of vomiting alone. Whatever the explanation, the fact remains to be emphasized that at least as much of the drug enters the blood stream from an initial dose of 2

TABLE I

The blood concentration of "free" sulfapyridine from an initial dose of 2 grams followed by 1 gram every four hours compared with that from an initial dose of 4 grams followed by 1 gram every four hours.

Dose	1	2	3	4	6	8	12	16-20	32-44 hours after
2 grams -----	.85	1.35	1.50	2.10			3.20	5.21	6.37 mgm. per 100 cc.
4 grams -----	.72	.93	1.43	1.90	2.47	2.61	3.19	3.79	4.27 mgm. per 100 cc.

grams (30 grains) as from 4 grams (60 grains).

When sulfapyridine is given by mouth, it begins to be absorbed immediately so that in one hour even considerable amounts have entered the blood stream. The concentration steadily increases, reaching its maximum in about six hours. Hence, follow-up doses should be given at intervals of four to six hours to maintain as uniform a blood level as possible. As soon as it gets into the blood, the drug begins to acetylate—i. e., a portion of it becomes changed by conjugating with an acetyl radical; this acetylated or conjugated portion is supposed to be inert, only the free form exerting any bacteriostatic effect. This process of acetylation begins immediately and continues throughout the entire course of treatment. The degree of acetylation varies enormously, being sometimes as low as 20% and as high as 80%, the average being about 35%; this means that in general, only 65% of the total amount of sulfapyridine which gets into the blood stream is in the free or useful form. Therefore, in testing the blood for the concentration of the drug during treatment, the estimation of the "free" sulfapyridine is of greater value than the estimation of "total" sulfapyridine, and fortunately it is the "free" form which is most easily tested for.

During the course of treatment, the blood concentration will vary greatly not only from patient to patient, but also in the same patient from day to day. It is almost impossible to maintain a uniform blood level as is possible with sulfanilamide. When the drug is stopped, it begins to disappear from the blood rather quickly, but it may take as long as five days for all of it to leave. The "free" form is the first to leave and the "conjugated" form the last. The drug is excreted in the urine and it disappears from the urine at about the same time that it does from the blood stream. The amount recovered from the urine varies from 20 to 55% of the total amount ingested, the average being 30%. This seems to be true whether there is vomiting or not.

One quite naturally asks the question, "What is the desirable blood concentration to try to attain?" It is rather difficult to answer this question and more difficult to do anything about it if the question is answered. Various opinions have been expressed by different writers on

this point but our studies in Louisville seem to furnish a possible answer to the question, or at least to throw some light upon it. Of the 103 cases of pneumonia which we treated with the drug, six died, a mortality rate of slightly under 6%. Of these six cases, 60% had a maximum blood concentration under 4 mgms. per 100 cc and 60% under 6 mgms. per 100 cc. On the other hand, in the remaining 97 cases which recovered, only 30% had a maximum concentration under 4 mgms. per 100 cc. and 60% under 6 mgms. per 100 cc. Although there were only six deaths from which to draw conclusions, yet it seems to us very significant that only one of those cases had a concentration of over 6 mgms. per 100 cc., whereas 70% of the recovered cases had concentrations over 4 mgms. per 100 cc. From these figures we are led to the opinion that a blood concentration of 4 mgms. per 100 cc is the absolute minimum of safety and that 6 mgms. per 100 cc or over is to be aimed at. As to how this may be accomplished, I shall speak later.

Along these same lines, it may be of interest to quote our figures in connection with the presence or absence of bacteremia. I recognize that this is a more or less academic question as far as the man in general practice is concerned, but because of their bearing on the question of optimum blood concentration, I feel I am justified in referring to them. At the Louisville City Hospital, of the nineteen recovered cases with a negative blood culture, seven recovered with a blood concentration lower than 4 mgms. per 100 cc while of the sixteen cases with a positive blood culture, in only two was the concentration lower than 4 mgms. per 100 cc. In other words, the other fourteen cases with bacteremia were fortunate in that we were able to get their concentration of sulfapyridine in the blood above what we consider the critical level for safety. It is conceivable that had their blood levels been lower, some of them might have died.

CLINICAL BEHAVIOR: In pneumonia, when a satisfactory response occurs, it is apt to be quite dramatic. It is not at all unusual for the temperature to drop by crisis within eighteen or twenty-four hours after beginning therapy, as illustrated in Table II. However, in many cases the fall is much less rapid and may be said to be by lysis rather than by crisis. In either case, there is an improvement in the gen-

eral condition of the patient parallel to the temperature fall. Strangely, signs of consolidation often persist for several days after the temperature has reached normal and the patient is feeling perfectly well. In many instances consolidation seems to persist until resolution sets in at the time it would have had the patient been untreated and the disease allowed to run "its natural course." In other cases consolidation persists even past this "natural" time, and more than one patient has left the hospital against advice because he felt perfectly well but with consolidation still present (delayed resolution). In many cases we have stopped the drug when the temperature became normal, either because of vomiting or because we saw no reason for continuing it. Most of these cases went on to an uneventful recovery, but a few of them developed a flare-up in fever, a relapse or a spreading of the infection. In every instance, resumption of sulfapyridine therapy was followed by a return of the temperature to normal and ultimate recovery of the patient. Not all investigators seem to have had the same fortunate results we have had, however, for there are reports where relapses were not followed by recovery. These experiences have led us to recom-

mend, as will be mentioned later, that the drug be continued if possible until resolution has set in.

DOSAGE AND ADMINISTRATION: The dosage of sulfapyridine is now fairly well standardized, although there is still some difference of opinion concerning the initial dose. The most generally recommended initial dose is 2 grams (30 grains), but some men recommend 4 grams (60 grains). On the basis of our work quoted above, we would without any hesitation recommend the smaller dose for the reasons given above, namely, that the blood concentration from the smaller dose is not only as high but generally even higher from the smaller dose than from the larger; also, vomiting is less apt to occur from it than from the larger. However, from there on, everyone is in accord that the accepted maintenance dose is 1 gram (15 grains) every four hours, day and night. As to how long the drug should be administered, there is again a good deal of difference of opinion. Some authorities feel that because of the danger of producing kidney stones or kidney disease, it should be discontinued as soon as the temperature drops to normal. Others feel that because of the danger of relapse, or of spreading of the pneumonia, it should be continued until resolution has set in. From our observation of patients under this treatment, where we have not infrequently seen relapses following cessation of treatment, relapses which responded as well to the second course of sulfapyridine as they did to the first, I am inclined to advise a continuation of drug administration until resolution is well under way. It is permissible, though, to reduce the dose by giving it every four hours during the day only, after the temperature has reached normal. And, of course, there will be patients who cannot tolerate it after the first day or so; in such cases, if the temperature has fallen to normal, it may be permissible to take a chance by stopping the drug. It may be mentioned here, however, that we have frequently observed that if the patient can be induced to continue the drug while he is nauseated, not infrequently the nausea will lessen and later he will be able to take it without any trouble.

In other infections than pneumonia, there is considerable difference of opinion regarding proper dosage. In the very virulent ones, such as pneumococcic men-

TABLE II

Temperatures and sulfapyridine dosage in a typical case of lobar pneumonia whose treatment was begun five hours after the onset of pneumonia. In this case resolution did not set in until seven days after the beginning of treatment.

Date	Hour	Sulfapyridine	Temperature
1939			
3-27	10 p.m.	4 grams	103.2°
3-28	12 a.m.	1 gram	
	2 a.m.	1 gram	
	6 a.m.	1 gram	
	8 a.m.	1 gram	102.2°
	12 p.m.	1 gram	101.0°
	4 p.m.	1 gram	100.6°
	8 p.m.	1 gram	99.4°
3-29	12 a.m.	1 gram	98.8°
	4 a.m.	1 gram	98.8°
	8 a.m.	1 gram	99.2°
	12 p.m.	1 gram	99.4°
	4 p.m.		99.6°
	6 p.m.	1 gram	
	8 p.m.		99.0°
3-30	12 a.m.	1 gram	99.0°
	2 a.m.		98.4°
	6 a.m.	1 gram	
	8 a.m.		99.0°

ingitis, and endocarditis, the same dosage rules as for pneumonia apply. In gonorrheal urethritis, almost all authors advocate somewhat smaller doses, doses as small as half a gram ($7\frac{1}{2}$ grains) every four hours, and more than one report speaks of cures from this dose. At the present time, no other form of sulfapyridine is available for general use except the oral preparation, which is in tablet form, made up of the pure drug mixed with sugar of milk to give it cohesion. The pure drug itself is soluble in saline and in glucose—in saline to the extent of a 0.2% solution. This may be given either intravenously or subcutaneously. It will probably be available for general use by this fall. There has also been prepared a sodium salt of sulfapyridine which is very soluble. Theoretically, this should be the form of choice, for one can expect more uniform absorption than from the drug itself. Marshall and Long have done some work with this salt but have restricted its use to patients desperately ill or to those whose blood concentration could not be brought up by the oral use of sulfapyridine proper. Severe reactions have followed its administration intravenously so that it is not a drug to be used routinely in this way. I have no information at present as to when it may become available.

Finally, there is the question as to what to do in those cases which are not responding as one would expect from the standard treatment. In such cases, as I have mentioned above, the reason may be that the blood concentration is not rising high enough. If laboratory facilities are available a blood determination should be made. If the free sulfapyridine is not at least as high as 4 mgms. per 100 cc. and preferably 6, then if it is available, the pure drug should be given either intravenously or subcutaneously in 5% glucose-in-saline. If it is not available and there has been an opportunity to type the patient's sputum, then serum should be given if the patient can afford it. If none of these things are possible, then all one can do is to try giving the drug every two hours instead of every four hours, hoping to try to boost the blood concentration in this way. And, finally, if all these measures fail, then there is but one recourse—to pray!

UNTOWARD EFFECTS

As with sulfanilamide, undesirable side-

effects are encountered with sulfapyridine. On the whole, these are not as serious as with the former drug. Cyanosis is not nearly as frequent but does occur occasionally; it may be disregarded except that one is often puzzled to know whether it is due to the drug or to anoxemia, from the pneumonia. In either case, however, it is not an indication for stopping treatment for when due to the drug, it does no harm anyway, and sulfapyridine cyanosis does not add any burden to the patient when already anoxicemic from infection. The greatest drawback to sulfapyridine administration is nausea and vomiting which occurs in over 50% of all cases. Little can be done to overcome this excepting that, as above mentioned, it is less likely to occur from a smaller initial dose than from a larger one. Various procedures have been advocated to lessen the nausea and although none of them are guaranteed to give results, yet they are worthy of trial. These consist essentially of the simultaneous administration of drugs which are supposed to soothe the stomach, such as administering the sulfapyridine crushed in soda water or in other alkaline substances, or in milk, or with belladonna or phenobarbital or other sedatives. Our own experience is not very encouraging in this respect, nor is there any reason why it should be, since we are of the opinion that the vomiting is caused by stimulation of the vomiting center in the brain and not by its local action on the stomach. It seems to us that the frequent administration of glucose in saline by vein offers the best hope of combatting the nausea.

Agranulocytosis has been feared and yet the actual number of instances of this condition reported in the literature is surprisingly small. We have encountered one such case developing in a woman two weeks after the drug had been stopped. It is fair enough to consider it possible that the sulfapyridine had caused it, but yet it seems improbable in view of the time interval between its use and the appearance of the blood condition. One other case developed a mild leucopenia which quickly disappeared when the drug was stopped. As far as I am aware, only one case of fatal agranulocytosis directly attributable to sulfapyridine has been reported in the literature. On the other hand, there have been reports and we have seen one such case ourselves, where the drug was started when a leucopenia

already existed, with a rise instead of a fall in the white count during treatment. To my knowledge, no cases of hemolytic anemia, such as follows sulfanilamide, have been reported. I feel that so long as frequent blood counts are done, very little risk is run in giving sulfapyridine, and where it is not possible to do frequent blood counts, the risk is still so slight as to be overshadowed completely by the good that may be expected.

One hears also of the formation of kidney stones or "gravel" from sulfapyridine and I have even heard good doctors make the statement that they would never use it because of that danger. This seems to be a case of rumor swaying one's better judgment. In experimental animals, kidney "sand" has been produced with relative ease, it is true, but very few cases have ever been reported in humans. Not one recognized case was encountered in the 130 odd cases to whom we gave the drug in Louisville. It is probable that the simultaneous administration of large amounts of fluids would prevent its development.

Nephritis has also been feared. However, this too is probably more a fear than a real danger. It is true that in the presence of kidney damage, the drug is more slowly eliminated than otherwise, but there is no evidence that the drug can produce a nephritis. As a matter of fact, there are reports of instances where the drug was given when the kidneys were damaged to start with, with improvement in kidney function with the cessation of the drug and recovery of the patient. We have encountered two or three such instances ourselves. I do not mean to imply that sulfapyridine may be good treatment for kidney disease, but I do feel that pre-existing kidney damage is not a contra-indication for sulfapyridine therapy, so long as the urine is closely watched during treatment. We have encountered one other kidney complication, however, and that is hematuria. Two of our patients had gross hematuria. In neither case was any permanent harm done. One patient felt perfectly well during the bleeding and had no urinary complaints whatsoever; the other had mild irritation. It is possible that "gravel" had formed in the kidneys in these cases and had produced the bleeding but neither had anything like pain such cases are reported as having. In both cases the blood disappeared shortly after withdrawing the drug.

Two other points deserve mention: First, sulfapyridine does not produce acidosis as does sulfanilamide, so it is not necessary to administer alkalies at the same time. Second, no case of sulfhemoglobinemia has ever been reported, so there is not the same reason for being afraid of giving sulfur-containing substances at the same time as there seems to be for sulfanilamide. As a matter of fact, Long points out in his recent book, "It is very doubtful if any case has ever been observed from sulfanilamide where the sulfhemoglobinemia was of sufficient degree to cause any real harm."

FUTURE POSSIBILITIES

That sulfapyridine has earned a permanent place in therapeutics, none can gainsay. Other agents may be discovered in the future which will be superior to it and which may replace it, but until that time comes, it will occupy an important place in treatment. The greatest need at the present time is for the development of some modified form of the drug which will be more uniformly absorbed and which will produce a more consistent blood level; and for a product which can be administered with relative safety by the parenteral route when it is not tolerated by mouth. At the present time the sodium salt seems to offer the best hope along these lines, but other salts may be developed which will be still safer. It is not to be expected that any preparation of the nature of sulfapyridine will ever be produced which will not produce some toxic effects, for any agent as effective as it is on a micro-organism is bound to have a powerful effect, an adverse one, on the human organism at the same time. It is possible, though, that smaller doses than are being recommended may eventually prove to be as effective as the present rather large ones, and these smaller doses would be less likely to have as marked an adverse effect on the human organism.

SUMMARY

1. Sulfapyridine has established itself firmly in the treatment of pneumonia. It is still not 100% effective but it is undoubtedly more effective than any other form of treatment so far available. Because of the fact that some patients die in spite of sulfapyridine, it is wise to have the sputum typed when possible so that serum can be used later if sulfapyridine seems not to be having the desired effect.

2. Other types of infections also respond readily to sulfapyridine, especially other types of pneumococcic infection, such as pneumococcic meningitis. The drug is of great value also in meningococcic and gonococcic infections, although on the basis of evidence at present available, sulfanilamide is still the drug of choice. It seems to offer some hope in staphylococcic infections. It may be of possible value in occasional cases of streptococcus viridans and streptococcus non-hemolytic infections. Sporadic instances have been reported seeming to show that it may be of value in other types of infections as, for example, in granuloma inguinale. One must accept many of the reported cures with great caution because of insufficient evidence. There is also some reason to believe that it may have a definite place in the treatment of certain cases of bronchitis and of throat infections when these are due to pneumococcus infections, but here, too, corroborative evidence is still lacking.

3. Due to its relative insolubility, sulfapyridine is absorbed very irregularly from the gastro-intestinal tract so that one cannot predict the blood concentration from one case to another. In the blood stream, a certain portion of it becomes quickly conjugated into an inactive form, so that an average of only about 65% of the total sulfapyridine in the blood is active. The blood concentration from an individual dose rises steadily for about six hours, so that maintenance doses should be given at intervals of from four to six hours. The blood concentration is as high or higher following an initial dose of 2 grams as it is following an initial dose of 4 grams, and vomiting is more likely to follow the larger dose. Upon stopping the drug, it is eliminated from the blood stream in about three days. The blood concentration desired for the most effective results is probably not less than 4 and preferably 6 or more mgms. per 100 cc.

4. The optimum dosage for pneumonia, according to the best information available at this time, consists of an initial dose of 2 grams (30 grains) followed by a maintenance dose of 1 gram (15 grains) every four hours day and night. It is probably safer to continue its administration until resolution has appeared, in order to prevent relapses, and this may mean continuing it until resolution would have occurred had no

treatment been given, for resolution is frequently delayed, although the patient may be feeling perfectly well in the meantime. In milder infections, and in gonorrhea, a smaller dose may be used—perhaps half the dose for pneumonia.

5. Where the patient is not recovering and a parenteral form of sulfapyridine is available, this may be used. Otherwise, serum, if available, should be resorted to. If neither is available, one may try the expedient of giving extra doses midway between the regular ones.

6. The most serious untoward side effect is nausea and vomiting which is very difficult to combat. Probably the best way of combatting it is with glucose-in-saline intravenously. The most dangerous complications, such as hemolytic anemia, agranulocytosis, etc., are fortunately quite uncommon from sulfapyridine and, moreover, danger of their possible development is greatly outweighed by the beneficial effects to be expected from sulfapyridine treatment. Hematuria does occur at times, but it does not seem to be a serious complication and clears up rapidly upon withdrawal of the drug and does not leave any harmful effects behind. There is no evidence that sulfapyridine produces kidney damage, though obviously in the presence of kidneys previously damaged, it should be used with caution. Cases of stones or "gravel" in the kidneys attributable to the drug are probably much rarer than rumor would have it, but to guard against this possibility, large quantities of fluids should be administered at the same time. Acidosis does not occur and cyanosis is uncommon and of no significance when it does occur.

7. The greatest need in sulfapyridine therapy is the development of a more soluble preparation which can be given safely by mouth, and in cases where it cannot be absorbed properly, by the intravenous or the subcutaneous route. The sodium salt at present under investigation appears to offer the closest approach to a solution of this problem at present, but so far this salt is not available generally, nor is it without its dangers.

DISCUSSION

R. Hayes Davis, Louisville: Dr. Kinsman has just presented a subject which represents one of the most valuable contributions to medicine that has occurred recently. He has presented the effect of the drug so satisfactorily that there is

very little to say, except that I should like to take up for a few moments this question of the treatment of pneumonia. No one can deny that sulfapyridine is of the greatest value possible in the treatment of pneumonia, as it has reduced the mortality from a very high percentage to a very low percentage. However, I believe that in cases that are exceptional we should not depend entirely upon sulfapyridine; we should also use the serum. For instance, a man who is over 40 or 50 years of age who starts out with a severe onset is probably safer to have a combination of the sulfapyridine and the serum than to depend upon the sulfapyridine alone. This also holds in cases that do not respond quickly to the sulfapyridine, where the temperature seems to hang on and the case does not return to normal in 24 to 36 hours. Then it is also a safe plan to use the serum too.

If there is excessive involvement of the lung, where more than one lobe is involved, I should not be willing to depend upon the serum alone, or, in fact, in almost any case that is exceptionally severe there is no reason why the serum should not be combined with the sulfapyridine, as then you have two means of fighting a disease instead of one. I believe, of course, in every case that is taking sulfapyridine the blood should be watched carefully and the patient should be most carefully studied from the very beginning.

The greatest point of importance is that pneumonia cases should be treated early by these specific methods. If they are treated within the first 24 hours, the chances of recovery are very great. If the case, however, is not diagnosed sufficiently early and the drug is not begun, either the sulfapyridine or the serum, until later in the disease, much time has been lost and a good chance of curing the patient may be completely thrown away. Therefore, in every case that presents any suspicion of pneumonia, a diagnosis should be made by, of course, examination of the sputum, typing the sputum, X-ray examination if necessary, and every available means of assuring one's self of whether lobar pneumococcic pneumonia is present or not, and then the treatment should be begun immediately, and the mortality will be reduced from a very high percentage to a very low percentage.

W. L. Tyler, Owensboro: I want to ask a question of information of the essayist, who seems to be thoroughly familiar with the latest statistics in regard to the use and results of sulfapyridine in the treatment of pneumonia. One question I would like to ask is if he has any data on the influence of the treatment of pneumonia with sulfapyridine and the development of empyema following the treatment with sulfapyridine.

John W. Scott, Lexington: I should like to

ask Dr. Kinsman what he considers the role of sulfapyridine in infarction pneumonia following operation, with and without the presence of pneumococci in the sputum. That is a problem I should be glad for him to discuss. My own inclination has been not to use it.

R. Hayes Davis, Louisville: May I add one other thing that I forgot to mention? In certain cases it is of great importance, of course, to know the type of pneumonia you are treating. Sulfapyridine is specific against the pneumococcic pneumonia. Certain cases don't cough and have no sputum, and this question has come up: How am I to know that this is a pneumococcic pneumonia? In a case that is seriously sick it is of great importance in such a disease as pneumonia to find out what the type of infection is. A bronchoscope can be used and secretion can be secured from lower down in order to determine the type of infection, if it can't be secured by other means.

I think that is a point that isn't usually thought of.

J. Murray Kinsman (in closing): The doctor asked about the development of empyema. I mentioned the fact that once empyema has developed, sulfapyridine will not cure it. I don't think enough figures are available yet to say whether it will or will not prevent its development. Certainly we have seen at least two patients in whom it developed after the beginning of treatment by sulfapyridine. I do believe that it will probably turn out to be that the percentage of cases of empyema will be less than in the past, but I have no doubt there will still be some cases.

Dr. Scott asked about the role of sulfapyridine in infarctions post-operatively, and so forth. I have no information on that point at all, Dr. Scott, and have not used it in any such patients nor have I seen any figures about it. I would think, however, that if a pneumococcus or an organism which turns out to be susceptible to sulfapyridine were found to be present in that infarct, it might be of value there, but I can't give you a direct answer.

Another doctor asked about whether we used sulfapyridine exclusive of all other drugs. Yes, we do. In the 103 patients in whom we used in and in the 3,000 patients reported here, no other specific drugs were used, apart from the symptomatic ones for necessary sedation, and so forth, but no serum was used, and no quinine drugs.

Dr. Davis mentioned the various types of pneumococci and it is interesting that in our own series several of our cases had no pneumococci in their sputum, but various other organisms, a streptococcus hemolyticus being found once or twice. One patient had a streptococcus

viridans infection. We have had two of those patients that cleared up.

The typing, of course, as both Dr. Davis and Dr. South mentioned, is of importance.

As for Dr. Simpson, I must agree with what he says. It appears that I bit off a bigger piece of cake than I meant to in this paper, because I didn't have time to read it all, and I probably spent too much time talking about statistics. This paper was meant to be a discussion of the manner of using sulfapyridine. It was not a question of the treatment of pneumonia. It is undoubtedly true that certain types of pneumococcus, some types at any rate, become resistant to the drug after a certain period of time, so if a relapse occurs with the same type and the drug is started again, it may not be effective the second time, which is one good reason for continuing the drug until a cure is established. Secondly, the drug acts presumably not by killing the organisms, but in a bacteriostatic manner, so that the patient's natural immune bodies will develop as time goes on.

Finally, in regard to his suggestion about the time it takes for resolution to occur, I did mention that. It is undoubtedly true that in many patients resolution is delayed, and I think he is right that in many cases it is delayed much beyond the ordinary normal time. I know that a good many of our patients in the City Hospital were sent home ten days to two weeks later still with consolidated lungs, but still feeling all right. I did not mean to imply that sulfapyridine is the great cure-all in the treatment of pneumonia. It isn't, of course, but it is of tremendous value.

I will say this, that in spite of what has been said and in spite of what we all know and believe, it isn't always possible to have sputum typings done. They should be done unquestionably when possible, we will agree to that, but ten miles in the backwoods somewhere it isn't always possible, and I do believe we have a drug that can be used when other things are not available.

Fluid Balance in Meniere's Disease — Cawthorne and Fawcett studied the effect of various salt and fluid intakes on the symptoms of Meniere's disease in eleven cases. All but one were affected to a greater or lesser degree by variations in the intake of fluid and salt. Any steps taken to favor the retention of fluid within the body resulted in an aggravation of the symptoms, whereas the reverse was true when excretion of fluid was encouraged. In nine cases this fluctuation of the symptoms was accompanied by variation in the hearing capacity; thus when the symptoms were more marked the hearing was worse and vice versa.

ANEMIA AS A PROBLEM FOR THE OBSTETRICIAN AND GYNECOLOGIST

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Anemia in women is common and plays an important part in obstetric and gynecologic practice. The obstetrician is concerned especially with the anemias of pregnancy and the puerperium; the gynecologist deals with patients of a much wider age range. In many respects, however, the cause and treatment of the anemias encountered in the two medical specialties are similar.

THE ANEMIAS OF PREGNANCY AND THE PUERPERIUM: PHYSIOLOGICAL FACTORS

Pregnancy normally produces circulatory changes which are reflected in the peripheral blood. The plasma volume is ordinarily increased about 25-30 per cent, the total corpuscular volume about 20 per cent and the hemoglobin 10-15 per cent. Because of this hydremia, which is most marked during the third trimester, there is an apparent deficit of erythrocytes and hemoglobin as determined by the usual methods. This deficit is only relative but should be kept in mind when the laboratory data are interpreted. In other words during pregnancy hematologic standards should be revised to conform to the following physiologic values: Hemoglobin 10 grams per cent (70 per cent Haldane); erythrocytes 4,000,000 per cmm. There is usually also a leucocytosis of 12,000 to 15,000. The leucocytosis is generally believed to be more marked in primiparae than in multiparae and reaches its height during the last month of pregnancy. These hematologic changes do not persist beyond the third week of the puerperium.

PATHOLOGIC FACTORS

The anemias of pregnancy vary according to cause. They may be classified on an etiologic basis, as follows:

1. Deficiency Anemias.
 - A. Hypochromic, due to iron deficiency.
 - B. Macrocytic, due to protein deficiency; due to insufficient intrinsic principle.
2. Hypochromic Anemias due to Inter-current Disease, especially infection.
3. Hemolytic Anemias.

THE IRON DEFICIENCY ANEMIAS OF PREGNANCY

These fall into two categories, idiopathic hypochromic anemia complicated by pregnancy and hypochromic anemia due to pregnancy. In both the anemia responds to adequate iron therapy but the idiopathic variety has a more definite age incidence, is accompanied by microcytosis and achlorhydria and persists up to the menopause unless iron is administered regularly. Simple hypochromic anemia due to pregnancy, on the other hand, usually regresses spontaneously at the end of the puerperium.

The cause of the two types of anemia is related to iron metabolism. A number of factors may operate to interfere with normal iron metabolism during pregnancy and the puerperium. During pregnancy the developing fetus stores an estimated 375 mgms. of iron, which must be provided by the mother. Bethell has pointed out, however, that a healthy subject can maintain satisfactory blood values for herself and the developing fetus on a comparatively low iron intake. Bethell's patient received only 7.1 mgm. of iron daily during the last sixty-three days of pregnancy. This was approximately equal to the average daily output of iron in the urine and stools. The pregnancy resulted in an infant which showed normal blood values. Bethell's patient was given a high protein diet. He found that the incidence of hypochromic anemia in pregnant women is about the same as that of hypochromic anemia in non-pregnant control females of comparable age and implied that the hypochromic anemia of pregnancy is merely an exaggeration of a preconceptional iron deficiency. Fullerton has shown that the average amount of iron required by the developing fetus, plus the iron lost in maternal milk during lactation is about equal to the amount conserved by the amenorrhea of pregnancy. Bethell pointed out that the estimated fetal stores of iron are approximately equal to the iron content in a liter of blood. The functional amenorrhea of pregnancy causes a saving of about 300 to 500 cc. of blood so that the net loss of iron during pregnancy is equivalent to that of a moderate sized transfusion. Corrigan and Straus, however, demonstrated that hypochromia occurred in twenty-four of one hundred pregnant women receiving no iron therapy, whereas none of another group of

a hundred pregnant women given 0.5 grams ferrous sulphate daily showed hemoglobin deficiency.

Another factor in the etiology of hypochromic anemia of pregnancy is the frequency of a capricious appetite and the general state of gastric function. Straus and Castle showed that 75 per cent of twenty-four pregnant women failed to secrete normal amounts of free HCl or pepsin and 80 per cent secreted more acid after delivery than during pregnancy. They suggested that relative hypochlorhydria may be an important factor in the development of an iron deficiency anemia during pregnancy. The gastric anacidity may well work in two ways—it may interfere with iron absorption (Mettier and Minot) and it may unfavorably affect the appetite. Bethell suggested that iron administered routinely during pregnancy serves less as a prophylactic than as a corrective measure and is effective especially in those cases in which there is already a predisposition to hypochromic anemia. The frequency of hypochromic anemia during pregnancy has been emphasized by so many independent observers, that effective iron medication should be instituted in every pregnant woman whose hemoglobin is demonstrably below the level previously suggested as physiologic. Iron medication should be continued in cases which clinically belong in the "idiopathic" hypochromic group. The more important diagnostic features of this type of anemia as previously indicated are persistent hypochlorhydria, koilonychia, age incidence of 30 to 50, low mean corpuscular volume, decrease in hemoglobin in excess of a concomitant decrease in erythrocytes and a low mean corpuscular hemoglobin concentration.

THE MACROCYTIC ANEMIAS OF PREGNANCY

These also fall into two general groups, one secondary to protein deficiency, the other due to insufficiency of Castle's intrinsic principle. Their differentiation can be inferred from hematologic data. The former is accompanied by a high mean corpuscular volume but an approximately normal average diameter of the erythrocytes. The red cells are therefore characterized by a condition of spherocytosis rather than macrocytosis. The macrocytic anemia due to insufficiency of Castle's intrinsic principle, on the other hand, is hematologically indistinguishable from pernicious anemia. Fortunately,

this is a rare condition in pregnant women, because this type of anemia usually occurs in later life and is commonly accompanied by sterility.

There are certain important clinical features of the macrocytic anemias which should be kept in mind. The anemia is insidious in course and sometimes may go unnoticed until the patient collapses. This may happen after as well as before delivery. Occasionally the anemia delays convalescence following delivery. This anemia is also an important, and often unrecognized, cause of premature labor and fever. The fever may be accompanied by edema and albuminuria leading to an erroneous diagnosis of nephritis. The question of recurrence during future pregnancies is unsettled. Some writers do not consider that future pregnancies are associated with recurrence, while several others believe that such recurrence is common. It should constantly be borne in mind that an adequate protein intake is effective in preventing all but the very occasional cases which are due to lack of intrinsic factor. Therefore the diet during pregnancy should be supervised with this objective in mind. Patient cooperation can usually be obtained quite readily by merely pointing out that disobedience to the dietetic regime prescribed will necessitate administration of an effective liver preparation by the parenteral route and that this will entail needless suffering and expense.

HYPOCHROMIC ANEMIAS SECONDARY TO INTERCURRENT DISEASE

Infection is the most common cause of this type of anemia. The anemia is characterized by a sharp drop of erythrocytes which often fall to 2,000,000 or less per cmm., a low hemoglobin content and low color index and—during the early stage—evidences of bone marrow hyperactivity as shown by the presence of reticulocytes and normoblasts in the peripheral circulation. This type of anemia is of the so-called “simple hypochromic” type in which iron is relatively ineffective unless the cause is removed. Careful clinical examination therefore is especially important.

HEMOLYTIC ANEMIAS

These are rare during pregnancy and Witts considers that the acute anemia which sometimes occurs in young pregnant women is identical with the acute hemolytic anemia of Lederer. The initial symptoms are fever, vomiting, an-

orexia, and headache. Diarrhea and abdominal pain are not infrequent and the condition is often erroneously called “intestinal influenza.” The blood shows a red cell count of 2,000,000 or less per cmm., a hemoglobin content of 6 grams per cent or less, a high reticulocyte count (10-15 per cent) and many normoblasts. The white cell count is raised also, and there may be many young white blood cells. This leukemoid state of the blood may easily be mistaken for true leukemia. The diagnosis is difficult but the condition often responds dramatically to transfusion therapy. One warning is in order. An especially careful matching of blood is necessary because of a tendency to autoagglutination.

The role of anemia in gynecologic practice is a difficult one to evaluate. Anemia in women is common and may be precipitated by repeated pregnancies. Many anemic women give a history of menorrhagia while others show scanty menstruation or even amenorrhea. Wintrobe and Gray investigated a group of 40 women with hypochromic microcytic anemia of the idiopathic type. In 14 of these there was an unexplained menorrhagia while 13 had menorrhagia due to demonstrable uterine pathology. From the gynecologic standpoint it should be remembered that a majority of these patients respond well to iron in adequate dosage; iron therapy must be continued for indefinitely long periods because of the tendency to relapse; a certain per cent of these patients will not respond to iron until such causes of menorrhagia as myomata and uterine hyperplasia are treated according to accepted gynecologic methods.

SUMMARY

1. Anemia plays an important part in obstetric and gynecologic practice.
2. Anemia is a common complication of pregnancy.
3. Faulty iron metabolism during pregnancy produces a hypochromic anemia, especially in multiparae.
4. A protein deficient diet during pregnancy produces a macrocytic anemia which fails to respond to iron therapy.
5. Anemia may also occur as the result of causes unrelated to pregnancy. This type of anemia responds poorly to dietetic or iron therapy unless the cause is removed.
6. Anemia may cause menstrual irregularities which will not respond to gyn-

ecologic therapy unless iron is administered.

7. Anemia in women may be due to primary gynecologic pathology. This type of anemia responds poorly to iron unless remedial gynecologic measures are carried out first.

FIVE THOUSAND SPINAL ANESTHETICS

C. C. HOWARD, M.D.

Glasgow

The history of the discovery of methods for the prevention of pain in surgical operations deserves to be considered by all who study either the means by which knowledge is advanced or the lives of those by whom beneficial discoveries are made.

The first recorded surgical operation performed under artificial sleep, which today is called anesthesia, had for its scene the Garden of Eden; its subject, Adam, and the surgeon, The Creator of all things. According to Genesis, "The Lord God caused a deep sleep to fall upon Adam, and he slept; and He took one of his ribs and closed up the flesh instead thereof."

From that day to the present there has gone forward a tireless search for some harmless and effective means of inducing the "deep sleep" that renders the subject unconscious of pain. Not only the Bible but the Talmud and the literature of the Chinese, Egyptians, Greeks, Romans and other peoples contain reference to artificial sleep.

And so the story of deadening the human body to surgical pain goes back thousands of years. Egyptian surgeons hit patients on the head and operated on them while they were unconscious from the blow. In the Middle Ages, powerful thumb screws clamped down on nerve trunks to paralyze a limb during amputation. In 1776 Anthony Mesmer attained fame in Paris by hypnotizing sufferers before they entered the operating room. But the most frequent method of preparing a patient for surgery, until less than a century ago, was to give him alcohol until he was intoxicated. Then, while four powerful men held the writhing victim, the operation was performed.

Only after the introduction of anesthetics did the surgeon have at his disposal sufficient time to attempt the mar-

vels we now associate with surgery.

Yet it is a long rough trail from the office of Dr. Crawford W. Long, Jefferson, Georgia, who gave the world general anesthesia in the year 1852 to our present day anesthesia.

To Kohler, Halstead and Corning are given the credit for the first use of cocaine for relief of pain. Back of them stands the South American Indian of the Andes who was cultivating the coco plant when Pizarro conquered Peru.

While nerve blocking can be and has been used for rather extensive surgical procedures, until comparatively recent times it was not applicable to major operations such as those involving the abdominal organs. However, this can now be achieved with safety and much benefit to both the patient and surgeon by the injection of the anesthetizing solution directly into the spinal canal. This is known as spinal anesthesia.

My first use of spinal anesthesia was Pitkins Solution which was not entirely satisfactory since its action was too slow and was not easily controlled as to height. Next in order was Neocaine which was quite satisfactory; then Procaine and Pontocaine; lastly Metycaine which so far is the best since it gives longer and more profound anesthesia without any added danger.

However, there is a distinct level beyond which spinal anesthesia should not be carried. It must not be allowed to reach the cervical nerve because it would then affect the function of important nerve centers related to respiration and the action of the heart, with results easily imagined. It can be used, however, for major abdominal operations in skilled and competent hands, so safely that many surgeons use it for almost all of their abdominal and lower extremities.

In fact, spinal anesthesia is indicated in any and all cases that are good enough risks to come to the operating room for surgery for any condition below the diaphragm except in the following cases:

(1) Those who seriously object (rare).

(2) Children who are highly nervous.

(3) Cases in which syphilis of spinal cord is known to exist.

(4) Cases in which there is infection at the point of puncture.

The dose and the space of the injection depend upon the type of operation con-

templated, viz: simple hernia or appendix in adults require 100 mgs. Metycaine (10% solution), and 1 cc. of solution in 2 cc. fluid in the third space above highest point of crest of ileum.

For gallbladder or stomach operations the correct dose is 150 mgs. of Metycaine (1.5 cc solution) in 2 cc of spinal fluid in the third space above crest (highest point) of ileum.

In the cases of aged people, or when there are vascular changes, make the dose small as possible.

The secondary steps in the administration of the anesthesia include the giving of Nembutal grain $1\frac{1}{2}$, one hour before operation, and $\frac{3}{4}$ grain ephedrine (hypodermic), ten minutes before anesthesia. Also $\frac{1}{4}$ grain morphine in adult cases is given just before the completion of the operation. Blood pressure reading should be checked and rechecked before and during anesthesia.

Bring patient to the operating room in bed and return to room in a like manner; lying comfortably with a pillow for his head. Contrary to some procedures we do not elevate the foot of the bed.

If possible always give anesthetic with patient lying on his side. Inject at rate of 1 cc every two seconds, then turn patient immediately on back, Trendelenburg, about ten degrees keeping head elevated on pillow to prevent anesthesia from reaching cervical spine.

The anesthetist sits at the head of the patient and talks quietly to him about things of interest while keeping watch on the patient's blood pressure, respiration, and general condition. If nausea appears oxygen is used and if the pressure falls below 80 systolic, Adrenalin in muscle is indicated.

If there is no marked anesthesia after fifteen minutes it is reasonable to suppose that the dosage has not been injected into the canal. In such cases do not hesitate to give another dose.

Regarding the actual injection, use a No. 19 spinal needle after injecting a 1% Novocaine at the point of puncture. Insert spinal needle through skin and fat; then remove stylette and gently push needle forward until fluid drops from the needle. The removal of the stylette will help prevent injury to the spinal cord.

It is needless to indicate that the details of administering spinal anesthesia must be learned by actual experience. Of course accuracy must be observed in measuring and collecting the fluid by the use of a luer syringe. A needle on nub with

the point broken off and heated will prevent leakage.

In conclusion, in five thousand cases I have not experienced any deaths which were directly due to the method of spinal anesthesia herein described. And outside of two cases of paralysis of the 6th nerve which lasted three to four weeks, no other contrary effects have been noted.

On the other hand, the profound relaxation induced by spinal anesthesia adds materially to good surgery, and is often credited with saving a life.

So it is with the confidence of past experience that I urge surgeons to master the technique of spinal anesthesia and to use it daily. They will find that it is a true friend in time of need.

DIAGNOSIS AND TREATMENT OF CERTAIN TYPES OF ANEMIA

R. E. HAYES, M.D.

Glasgow

Anemia is a deficiency in the peripheral circulating blood of either the number of red cells or the amount of hemoglobin or both. The type of anemia present is dependent upon the nature of the process responsible for its development and it may be classified upon this basis, or upon certain typical features of the blood which are recognized as being associated with disturbances in the blood forming mechanism.

From the practical viewpoint, the anemias can be divided into two main groups, the hypodermic or those with small cells (microcytes) and the hyperchromic or those with large cells (macrocytes). Under the heading of hypochromic would be included all those anemias generally spoken of as secondary, but all secondary anemias are not necessarily hypochromic: Examples of secondary anemias which are not hypochromic are anemias associated with malignancy of the stomach and those following extensive surgery on the stomach. The outstanding example of hyperchromic anemia is pernicious or Addison's anemia.

The hypochromic or microcytic anemias in general are those caused by a deficiency in iron content of the blood. This deficiency may be caused by loss of

iron from the body, insufficient iron in the diet or improper utilization of the iron after it is taken into the body.

One may therefore classify hypochromic anemias from the etiological standpoint as follows:

(1) Anemia secondary to hemorrhage either acute or chronic hemorrhage.

(2) Idiopathic hypochromic anemia.

(3) Hypochromic anemia secondary to pregnancy.

(4) Nutritional anemia.

(5) Anemia associated with infection.

(6) Anemia secondary to disease states such as pulmonary tuberculosis, nephritis, leukemia, etc.

The symptoms and signs of hypochromic anemia are most often few and indefinite. Weakness is perhaps the most constant symptom. Others may be shortness of breath, ease to tire, palpitation of the heart, edema of the extremities, anorexia, indigestion and depending upon the severity of the condition, pallor and faintness. There may be a history of chronic loss of blood such as vaginal bleeding or loss of blood from the Gastro-Intestinal tract.

The degree of weakness will vary with the amount of reduction in the hemoglobin and the rapidity at which the blood is lost. For example with acute massive hemorrhage, the degree of weakness may be out of all proportion to the severity of the anemia and the patient with a slow chronic loss of blood may so adjust himself that weakness will not be an outstanding symptom. Of the signs which are common to hypochromic anemia, pallor is perhaps the most noticed and the most outstanding. Pallor, when present, is not icteric as in pernicious anemia, but may vary in actual color in different individuals.

Pallor of the mucous membrane is more significant than of the skin and when present, is most often an indication of some degree of anemia. Icterus of the sclera is not present in uncomplicated cases of hypochromic anemia.

It may be said that an anemia, no matter how trivial, should be studied and treated because if it continues, it has a tendency to aggravate any pathological process which may be present in the body.

The final diagnosis of any type of anemia should not be attempted until a thorough study of the blood has been

made by microscopic methods. The erythrocytes in hypochromic anemia are smaller than normal, poorly shaped and paler than normal. To determine the degree of anemia, it is necessary to have an accurate erythrocyte count and an accurate hemoglobin determination by the Sahli or Dare methods, the Tallquist method being inaccurate. After having determined the red cell count and the hemoglobin percentage, the color index should then be determined. This is the estimation of the average amount of hemoglobin in the erythrocytes in comparison with an arbitrary fixed normal. If a color index below one is obtained, which is a hypochromic anemia, the erythrocytes carry only that portion of hemoglobin indicated by the figures obtained.

When one has made an accurate red cell count, determined the percentage of hemoglobin present and the color index, the type of anemia can be classified and treatment instituted according to the type present.

The treatment of hypochromic or microcytic anemia is, if possible to find the etiological factor responsible for the loss of blood and correct it. After correction, iron must be given in sufficient quantities to aid in restoring red blood cells and hemoglobin. To be sure that iron will be absorbed, the gastrointestinal tract should be investigated, if there is absence or diminution in hydro-chloric acid it should be prescribed to aid in the assimilation of the iron. Iron must be given in large doses over some period of time to get beneficial results. In general ferrous iron is preferable to ferric iron or the organic irons. Since large doses are needed, it is better to give it by mouth than hypodermically.

The following dosage of different preparations are recommended:

(1) Reduced iron 30 to 45 grains daily, divided into three doses.

(2) Ferrous sulphate 9 grains daily, divided into three doses.

(3) Ferrous carbonate (Blaud's Mass) in capsules 60 to 100 grains daily.

(4) Iron and ammonium citrate 60 to 90 grains daily.

Iron should always be given after meals as the gastric irritation is least when given at this time. Just in recent years have such large doses of iron been given. At present, the dosage of iron is

from 4 to 6 times as great as was recommended a few years ago.

In using iron therapy, if one does not get the desired results with one form of iron, it is well to try another form.

In extremely anemic patients where the individual is considered in danger, transfusion should always be resorted to and then iron therapy instituted.

If the patient has been on a restricted diet, and there seems no contraindication to a more liberal diet, he should be instructed to take a diet rich in iron such as red-meats, eggs, liver, raisins, apricots, peaches, beans and other iron containing foods.

In a simple hypochromic anemia, there is never an indication as far as therapeutic value is concerned of giving liver extract.

Macrocytic anemia is characterized not only by large cells (macrocytes) but also by hyperchromia as contrasted to microcytic anemia which has a hypochromia. Macrocytic anemia, of which pernicious anemia is the outstanding example, is a deficiency disease due to a lack of substance necessary to the formation of the red-blood cells. This deficient material is called by different names, stroma producing factor (Whipple), X or anti-anemic factor (Castle), erythrocyte maturing factor (Hayden) has been shown to be a product of interaction formed by an intrinsic factor in gastric secretion and an extrinsic factor found in foods. This product is found stored in liver primarily, but is also present in kidney and brain tissue. As has been stated, pernicious anemia is the outstanding example of macrocytic anemia but it can also be present in pregnancy, sprue, pellagra and certain gastro-intestinal disorders.

In pernicious anemia, the pathology may be found in three systems: (1) Gastro-Intestinal, (2) Nervous, (3) Blood.

The symptoms of the gastro-intestinal tract are sore tongue, intermittent diarrhea, achlorhydria, diarrhea and anorexia. All or any of these symptoms may be present at some time or other during the disease.

The symptoms of the nervous system are numbness and tingling. Hyperesthesia, coldness and tightness. Mental disturbances, disturbed locomotion, diminished or absent vibratory sense. The signs of the blood are, anemia as determined by red cell count, macrocytes and poikilocytosis, hyperchromia and increased icteric index.

As everyone knows, liver in some form or other has been the accepted form of treatment for pernicious anemia since about 1927. I do not think that everyone has been sufficiently sold on the idea of liver therapy and that everyone has taken the time to find out just what liver will do to a patient with pernicious anemia.

We have all been prone to say, well this patient is anemic. I will give him a few shots of liver or worse still, I will give him some shot-gun preparation which is on the market containing liver, iron and more recently some of the vitamins.

Pernicious anemia is a specific disease and can be classified among the few pathological conditions for which we have a specific form of therapy and that therapy is liver. At times, it may be necessary to give other medication such as hydrochloric acid to combat the achlorhydria or in the case of an extremis, blood transfusion may tide the patient over until liver has time to produce a satisfactory response in the bloodstream.

Just how and in what form one gives liver does not matter provided the patient gets sufficient amounts. In treating a pernicious anemia patient, one would know the red-blood count, the hemoglobin, the size and shape of the red-blood cells and the color-index. After treatment is started, frequent reticulocyte counts should be done, because a rise in reticulocytes is an indication of the effectiveness of liver therapy. On liver in sufficient quantities the reticulocytes count shows a gradual daily rise, reaching its peak sometimes as early as four days, and always reaching its height by the end of two weeks. Along with this rise, but slower and starting a bit later, there is a gradual increase in the number of red-blood cells with a gradual return to near normal of the size and shape of the erythrocytes. Accompanying this, there is a return to normal of the color index.

The optimum is enough liver to keep the erythrocyte count at 5,000,000 cells per cubic millimeter or better at all times. When the count begins to approach normal there is a marked improvement in the clinical symptoms and if the red-cells can be kept at 5,000,000 or over, there will be a gradual, but slow improvement in neurological signs and symptoms.

A patient once diagnosed pernicious anemia and treatment instituted should

be told that it will be necessary to continue this treatment the remainder of his life. Even during remissions he should be kept under constant care and receive liver for there is sure to follow a relapse and he will have the same thing to go through with again.

During other illness, before and following surgical procedures, he should have constant care and intensive therapy in order to prevent a relapse. The preferable mode of administering liver is by intramuscular injections using a concentrated extract which is known to be potent in the anti-P. A. factor. As said before, any method is all right which gives a satisfactory response but it becomes tiresome for most people to eat liver every day and the liver concentrates for oral use have not proven satisfactory.

DISCUSSION

C. C. Turner, Glasgow: Since much depends upon the treatment of anemia, a correct diagnosis is of extreme importance. It is quite a tragedy to diagnose a case of hypochromic microcytic anemia as one of pernicious anemia and therefore condemn the patient to a life of more or less invalidism, necessitating the administration of liver for the rest of his life.

Since anemia is produced by an imbalance between the rate of erythrocyte formation and destruction or loss from the body, it is important to determine the reticulocyte count, the icterus index, and the urobilinogen excretion in the urine.

If the blood picture is that of macrocytic anemia, a history should include questions about the presence or absence of a sore tongue, stomach operations, dietary habits, whether adequate, numbness, tingling, ataxia, spasticity, whether or not there is diarrhea. The vast majority of macrocytic anemias will prove to be true pernicious anemia. In all, the fundamental cause is a deficiency of the anti-pernicious anemia principle.

The most important points in the physical examination are inspection of the tongue for the smooth, glossy appearance characteristic of atrophic glossitis; percussion and palpation of the spleen, palpation of the lymph nodes, and activity of the tendon reflexes. The important laboratory studies, aside from the routine hematologic examination, are the examination of the gastric contents for free hydrochloric acid and the stools for occult blood and for intestinal parasites. Another important point is that of an x-ray examination of the bony skeleton, especially the pelvis. Often there is found a condition which simulates that of metastasis of

carcinoma. I have under observation one such case. This patient has been ill for a good many years, and she was at one time diagnosed from the x-ray film as metastatic carcinoma, but the original focus was never found, so it developed through the process of time that instead of having metastatic carcinoma she had actually pernicious anemia.

In all macrocytic anemias, a thorough trial of anti-pernicious anemia principle should be given. In all except a few rare cases this will prove effective, provided, of course, a sufficient quantity of potent extract is given. The effectiveness of the treatment is manifested in the reticulocyte count.

Hypochromic microcytic anemias. By far the most common cause of this type of anemia is some form of chronic hemorrhage. In addition, there is the so-called idiopathic hypochromic microcytic anemias of middle-aged women, the iron deficiency diet, the anemia of pregnancy and of premature infants. The fundamental cause of all these anemias is a relative or absolute deficiency of the iron intake. A careful history should be taken and questions should be directed toward bringing out symptoms of diseases which might cause loss of blood from the gastro-intestinal tract, urinary tract, uterus respiratory tract, gums, or nose. Inquiry should be made as to the diet, as to whether sufficient meat, eggs, and other sources of iron are taken.

The physical examination should be directed toward locating a source of chronic loss of blood. Treatment should be directed first toward the control of the loss of blood, and, second, the oral administration of iron. The daily intake should equal 1 to 2 grams of metallic iron. It makes little difference whether it is reduced iron, ferrous sulphate, or ferric ammonium citrate, just so it is given in ample dosage. I know of no preparation for intravenous or intramuscular administration which is of any material benefit. There is no logical reason for giving liver preparations or arsenic to patients with hypochromic anemia.

I think we often get into trouble by allowing the detail men to tell us what is good for this, that and the other thing, more than any other cause. A detail man came around the other day, and I had the subject of anemias on my mind; yes, he had the very medicine for her and here was a sample. According to the label it did not take into account the diagnosis, no worry about that. It contained both liver extract and iron, copper, etc., but not enough of any one to be of any value. I suppose detail men have their place but I do not think they have had sufficient training to prescribe for a patient even if they knew the diagnosis.

R. E. Hayes (in closing): There is just one point in Dr. Turner's discussion that I would like to reemphasize, and that is, it was said it made little difference what form of iron you used. I believe it is generally conceded that ferrous iron is more readily absorbed in the gastro-intestinal tract than any other form of iron.

MANAGEMENT OF PNEUMONIA IN THE SMALL URBAN COMMUNITIES

W. R. PARKS, M. D.,
Harlan

I am going to present an unusual discussion on an old time and tried subject. I judge that the majority of the membership of this society practice in towns and communities of less than 5,000 population. It is their problem and their viewpoint in the treatment of pneumonia that I want to discuss and hope that it will prove interesting.

Every active county medical society in the state has guest speakers on many occasions at their meetings. These guest speakers usually come from larger centers where in many instances, they are connected with a medical school, or teaching hospital, or clinic, or certainly have access to all the modern conveniences in the treatment of disease.

It is very fine and in my opinion a necessity, for the doctor in the small urban community to have the opportunity of hearing these men discuss modern methods used. True, there are a number of good journals carrying similar articles but much more can be gained from a personal presentation and discussion than by reading. Then again, I am sure that none of us read the current journals as thoroughly as we should. To come to the point, these gentlemen from the larger cities where they have every means at hand for the scientific management of disease, present the treatment of the disease as they are practicing it today. In their presentation, they probably report large series of cases in which they are using some new drug or serum. After their presentation to the local society, the paper is opened for discussion and many times I feel that the distinguished guest goes home feeling his paper was not well received because the discussion was so limited and in many cases limited to questions rather than to discussion. There is a reason for this. It is not be-

cause the doctor in the small urban community did not enjoy the subject matter and benefit greatly by it; it is because the doctors are not accustomed to expressing themselves to a large group and in many cases are unwilling to present their experiences in the presence of one who is presenting the subject from an ideal standpoint. Those same doctors in a small round-table discussion or personal discussion could give some invaluable information on the management of pneumonia as they meet it every day in their respective communities.

With respect to the subject at hand, in the larger centers as soon as a diagnosis is arrived at, the patient is removed to a hospital or nurses are summoned in attendance. A sputum sent to the laboratory for typing, a blood count and urinalysis are made, oxygen administration may be instituted. In a short while, the laboratory reports the blood count and the type of pneumococci encountered. Consequently with all these facilities, the patient is given a scientific, ideal treatment and made as comfortable as possible in the shortest length of time.

In contrast to the above situation, let us examine the problem as presented to the doctor in the small urban community. In his community there is located a small general hospital. They are able to make a blood count and urinalysis. There is no well-equipped laboratory in his town and it is necessary for him to send a specimen of sputum off. We will say, for the sake of example, the doctor's patient lives out of town and is not easily accessible. They have not yet installed rural electrification in this man's home. A member of his family becomes violently ill with a chill and subsequently high temperature and rapid breathing. The doctor is summoned and after an examination, a diagnosis of pneumonia is made. On inquiry, the doctor finds that this man is a small wage earner, making a hundred dollars a month and has a family of six. He is not a member of a hospital insurance plan, but this man has been frugal and has saved from his wages one hundred dollars for an emergency. Surely, now the emergency has arrived and a member of his family is stricken with a disease that carries a mortality rate of nearly 30%. With this sort of set-up, the doctor decides to treat the patient in the home and to make the means go as far as possible. The mother is instructed as to how to sponge the patient and pre-

pare a room and bed for the treatment that is to follow. A quiet, well-ventilated room is selected and the patient is removed to the new quarters. The doctor takes back to town with him a specimen of sputum for laboratory analysis. This is prepared and sent off to the nearest laboratory. In the meantime the doctor calls a trained nurse, assembles his oxygen tent, collects the necessary drugs, ice and sundry items, and dispatches the nurse to the patient's bedside. It is evident that treatment should be instituted immediately and not wait for any laboratory report, so the doctor prescribes the latest chemotherapy and puts the patient on sulfapyridine.

By use of the open-top oxygen tent the patient is relieved of his labored breathing, his heart action improves and many times his temperature is lowered. The tent should be used early and not wait for cyanosis to appear. The open-top tent is simple and is applicable to any home. No motor or other electrical appliance is needed. Pneumonia patients should have sedation early and frequent enough to control restlessness. In many cases, one of the various barbiturates is sufficient. In some cases, these add to the delirium and in these cases, I have no compunctions against the use of opiates. Blood pressure readings should be taken frequently and recorded on the chart. It is a very reliable method of judging the reserve of the heart muscles.

Since the advent of sulfanilamide and sulfapyridine, the drug treatment of pneumonia has been radically changed. Before the advent of sulfapyridine many men over the country were quite sure they saw good effects from the use of sulfanilamide and one writer published a series of one hundred and fifteen (115) cases in which he claimed a mortality rate of 15.7%. The death rate in fifty-seven (57) cases of types 1, 2, 5, 7, and 8 was 10.5%. In a group of ninety-four (94) control cases, mortality rate was 30.8%. In a group of forty (40) serum cases the mortality rate was 27.5% with same types. However, since sulfapyridine came into existence and was so thoroughly studied on large series of cases throughout the country before being released for general use, it is convincing evidence that this is the drug of choice. There is ample evidence it is effective on all types of pneumococci when effective at all. There is

conclusive proof that this form of chemotherapy has reduced the mortality rate from 27% to around 6%. This percentage differs in the many reports now current in the various journals. It is the common experience of all users that if sulfapyridine is going to be effective, the temperature will drop within the first twenty-four hours and reach normal within forty-eight. In my own hands with a relatively small number of cases, I have never seen any of the untoward symptoms from the use of the drug. I believe it is wise to administer alkalization along with the drug and, of course, abstain from the use of sulphates. With this method of treatment, very little, if any, other treatment is needed.

There is a time-honored custom among people and concurred in by many physicians, in the use of various preparations on the chest wall. These range from the onion poultices to several kaolin preparations and various ointments and oils. In my opinion, after the pneumonia is developed, it is best not to use any sort of rubefacient on the chest at all. The poultices and kaolin preparations are heavy and only add an additional burden to the already tired muscles of respiration. It is hard to conceive how any form of heat applied to the skin could cause enough hyperemia in the lung to be of any particular value. Again, the skin is an adjunctive respiratory organ and should not be hampered. I do think, however, that early in the disease, or when a common cold or bronchitis, applications of camphorated oil applied with friction massage are of some advantage.

The nursing care of a pneumonia patient cannot be too strongly emphasized. Pneumonia cases, particularly those under oxygen tents, should have a trained nurse at hand at all times. I always caution the nurse, as well as the family, about open flames in the room where oxygen is being used. The patient should remain in the oxygen tent so long as his respiration is labored. He can be removed from the tent a few minutes at a time and as he improves, this interval can be lengthened until he can be removed from the tent entirely. Since using sulfapyridine, I find that I do not have to use the tent near so often, particularly in the case that is seen early and treatment instituted.

Care of the bowels is an important part

in the treatment of pneumonia. Many cases, particularly those of the lobar type, become very much distended. A mild laxative to begin with should suffice, after that one or two saline enemas daily are sufficient. Distention can be effectively controlled with petressin.

Diet in pneumonia in my opinion, until the temperature subsides, should be fruit juices and large quantities of water. If fluid or juices are not well taken orally, then 10% glucose in saline should be given intravenously, at least 2,000 cc. daily until nourishment and fluids are taken better orally. As soon as the temperature subsides, soft diet can be prescribed.

In the cases that do not respond to chemotherapy in forty-eight hours, serums should be used. In the small urban communities, this offers an additional problem for the physician. It is necessary to know exactly which type or types is being dealt with as determined by the laboratory. Most small urban communities do not have drug stores that stock all of these various types of serum and many times a great deal of delay is occasioned by this. Again, in the case that has been exemplified, it is hoped that it will be unnecessary to administer serum because serum therapy is very expensive when given in adequate dosage.

Should I not be unmindful of physiotherapy as related to the treatment of pneumonia, I hasten to mention that a few years ago, a wave of enthusiasm swept the country and was fanned by manufacturers that diathermy was a near cure-all for pneumonia. I am convinced that diathermy can be used in many cases of pneumonia to an advantage, but I think that sulfapyridine and serum pretty well substitute for it now. Diathermy is effective, there is no doubt, when given frequently enough and at high enough amperage. It has this most serious drawback, however, and that is that it disturbs the already very sick patient too much. If diathermy in pneumonia is used to advantage, it should be given every four or six hours, according to my experience. All patients, and particularly children, rebel, and undue restlessness is occasioned. Again, diathermy requires too much time of the physician at the bedside.

CONCLUSIONS

1. Pneumonia in the small urban communities presents an entirely different problem of management than that case

found in the large city.

2. In the light of our present knowledge, modern chemotherapy can be used and should be used in all cases of pneumonia when first seen.

3. Detailed and expensive laboratory procedures do not preclude the use of sulfapyridine.

4. Serum therapy should be used after forty-eight hours, if sulfapyridine is of no avail.

5. Oxygen therapy is a valuable adjunct and a necessity in the management of many pneumonia cases.

6. Adequate nursing is a prime requisite in the treatment of pneumonia.

DISCUSSION

S. M. Rickman, Paris: The treatment of pneumonia resolves itself around the treatment before the advent of sulfapyridine and after the advent of sulfapyridine. Before the advent of sulfapyridine, it was my experience that the doctor treating pneumonia did too much for the patient. You have a little child lying in bed who does not want to be disturbed; grandmother, grandfather and all the aunts and uncles come around and see the child and hold it in their arms, and then they will have two or three nurses and doctors doing several things to the child many times during the day which makes the child considerably worse. In treating a child with pneumonia, the first thing I try to do is to isolate the child in some small room and allow only the nurse, if one is available, to take care of the patient. In the event the people are not able to have a nurse, one member of the family at a time takes care of the child and everyone else has to play the game of "hands off."

The "hands off" procedure is equally as important in the treatment of the adult, after the diagnosis of pneumonia has been made. I think it inadvisable to turn the patient from side to side and have them sit up for further examination, if you are certain the patient has pneumonia. The patient needs all the strength he has and there is nothing gained by repeated examinations.

In my experience it is important after the doctor is called to see a case of pneumonia of three or four days duration not to transfer the patient to a hospital for further treatment. The trip by ambulance to the hospital is almost always suicidal for the patient. Regardless of how inconvenient or what little facilities you may have in the home, the patient is much better off in the home than in the hospital, provided pneumonia has been present for three or four days. As the slogan in fractures "to splint them where they lie," it is also applicable to pneumonia "to treat

them where they lie."

For fever, I usually use ice or some form of hydrotherapy which makes the patient much more comfortable and less restless. Almost any mother, if a nurse is not available, can give the child or adult a sponge bath, if properly instructed by the doctor. In the winter, the parents can go to the drug store and get an ice cap; or if they cannot afford this, there is usually ice outside the window. In the summer, it is quite easy to go to some nearby place and get ice.

For restlessness, I think there is no better drug than small doses of phenobarbital. It has somewhat of a cumulative effect and the patient remains quiet most of the time. At times it is very difficult to know what is the best drug of choice to give an adult patient with extreme restlessness in pneumonia. If morphine must be given, it is best to give it in small doses. The stronger barbiturates have a depressant effect on the patient and at times it makes them much more restless and harder to manage. Sodium luminal subcutaneously is oftentimes helpful. In my experience, aspirin is a good drug in treating pneumonia in the child. In giving aspirin, be sure to give it in small doses, one or two grains according to the age of the child. This is oftentimes all that is necessary for the child with pneumonia. In treating adults, you can combine aspirin with one-half to one grain of codeine sulphate which is oftentimes very beneficial.

The forcing of fluids is of paramount importance. The patient should have from 3,500-5,000 cc. of fluid daily. The bowels should be emptied with a low enema daily to prevent abdominal distention. I do not use and do not recommend strong purgation.

As to oxygen, I think here you have to individualize the case. I have never seen the need of giving oxygen to a patient, simply because he has pneumonia. I have seen patients definitely with pneumonia who didn't need any oxygen at all, and they recovered. If the respiration is not labored and the pulse is not exceedingly fast and there is no cyanosis, I see no need of instituting oxygen therapy. If oxygen is necessary, and the people are not able to have a tent, you can go to some welding shop and get a tank of commercial oxygen rather than medical oxygen and put a small catheter into the patient's nose, which will oftentimes suffice as well as the more expensive oxygen tent. In some of the urban districts where electricity is not available, and the oxygen tent is out of the question, the above procedure is quite satisfactory.

In my experience, I have never seen counter-irritants help any in the treatment of pneumonia, although you sometimes have to use them if grandmother insists. However, I don't think

they hurt the patient.

I have never used diathermy, although I have had some experience with other doctors who have. I have never seen diathermy help a case of pneumonia. I cannot understand why additional heat to the patient will help any when he already had a temperature of 103°.

Last year we had the use, of course, of sulfapyridine which almost revolutionized the treatment of pneumonia, and I must say that it acts well in my experience. However, since the majority of cases of pneumonia last year were not as severe as cases in previous years there is some doubt in my mind as to whether or not sulfapyridine would prove as good a drug as advocated if it were used in more serious cases of pneumonia. The use of serum is important. Typing is necessary. This procedure is not difficult, because laboratories equipped to do this now are not far distant. The serum with the formation of the immune bodies is certainly most logical. The combination of serum and sulfapyridine, in my opinion, is the method of choice.

C. L. Sherman, Millwood: I understand that about 50 per cent of these patients, when given sulfapyridine, vomit. I want to know what to do about it. Do we have to withhold it, or what percentage may go on and take it in spite of the vomiting.

A. T. McCormack, Louisville: I want to congratulate Dr. Parks on the presentation of this paper, and the opening discussor for having opened up a subject that is of vast importance. Pneumonia is one of the causes of death in Kentucky that is increasing, and it is very important for us to consider it. I would like for you to realize that in any case where you have doubt about the type, if you will put somebody in the car and send a specimen to the laboratory it will be typed immediately and the appropriate serum can always be gotten at the headquarters of the Association at cost. Of course this cost is high. In New York the Pneumonia Commission has estimated that the average cost of the treatment of a case of pneumonia at home is \$124. That is, of course, a great deal more (and that doesn't include the medical cost at all) than most of our patients are able to pay, unfortunately. In New York and Massachusetts, Pennsylvania, California, Michigan, the serum is furnished by the state. We have not yet been able to do that because we haven't the necessary appropriation, but we are ready to undertake everything that needs to be done in the preparation for the care of these cases.

I want to call your attention especially to the fact that in all of the health departments there is now an oxygen tent made and ready and available for loan to any doctor who needs to

use it. We will have several of them in the counties where indicated, so they will be available to you whenever you want them. They will also be available for use with premature babies where you need them. You can get the oxygen from almost any garage now.

This question is one that you are all interested in, a disease you are all treating, and I hope very much you will tell the things that you need to do. Dr. Parks has presented the kind of paper that is of utmost importance. We need to be thinking of the things we can do practically for our patients, and it is not so much the thing that is to be done under ideal situations in a hospital; it is the thing that can be done in the home, practically, that is of importance in the care of these cases.

John W. Scott, Lexington: There isn't anything in the practice of medicine that I think comes as near following a definite pattern as does the treatment of pneumonia under the conditions that the doctor has described. In the first place, as to diagnosis and instituting treatment; this must not wait upon a carefully worked out diagnosis by X-ray or other laboratory aids or even definite physical signs, but must be a presumptive diagnosis. When a patient has sudden elevation of temperature, pain in the chest, and spits blood, he has pneumonia to all intents and purposes, it doesn't make any difference about the x-ray or the physical signs. Treatment should be begun at once under such conditions, especially with the present chemo-therapy. The presumption is all in favor of the patient's having the disease and very little harm will be done by the treatment if he doesn't have the disease.

The point is to institute treatment without waiting for a meticulous diagnosis.

Chemo-therapy, in the form of sulfapyridine, has completely revolutionized the treatment of pneumonia. It should be given according to a pretty well defined pattern, two grams (thirty grains) for the first two doses, or at least for the first dose, and one gram (fifteen grains), after that, until twenty-five grams are given. The temperature will usually fall promptly and the patient will go on and get well.

As to what the adjuvants are, especially oxygen; it seems to me that in small urban communities oxygen should not be used. In the cases that the doctor has described, with \$100 in the bank and six children, it is a crime to waste any of it on oxygen. It has been shown by Cole, who has had experience which I think is superior to anybody's in this country, that the mortality of pneumonia is not influenced by oxygen given even under the highly efficient conditions of the Rockefeller Institute. It may

make the patient more comfortable, the family feels that the patient is "getting oxygen," and so on, but as to effectiveness it matters little in determining whether the patient gets well or not.

A year ago serum would have been a *sine qua non*. Today under conditions in question it is not in my opinion to be considered, sulfapyridine being available.

Fluids, 3,000 cc. or more daily and sedatives codein and morphine are essential.

W. R. Parks (in closing): Regarding the question of Dr. Sherman as to the vomiting, I presume that he meant when we give sulfapyridine. It would seem, from a review of the literature, particularly those series of cases which were some 3,000 in number and who used the drug before it was released for general use, that they ascertained the fact that the original dose was the dose that really did the trick. In other words, the consensus of opinion seems to be that your original dose should be twice that of your maintenance dose, depending on the age of your patient. In the adult weighing around 135 to 150 pounds the usual dose for that sort of individual would be two grams, with a maintenance dose of one gram every four hours.

A large percentage of these cases will vomit. You will find it helpful if you administer sulfapyridine with some sort of a tart fruit juice or some sort of fruit. I have found that stewed apricots, peaches, and that sort of thing has been very helpful to me. In a certain number of cases you will fail in giving the drug orally, and in those cases I would resort to rectal administration. The drug is not very soluble in any medium that you can use in any of the cavities. However, there is rather conclusive proof that it will be absorbed from the rectum in those cases in which you cannot use it otherwise.

Basal Metabolism in Hypertonia. — On the basis of their studies of basal metabolism in 620 cases of hypertension, Reznitakaya and Spivak conclude that no relationship exists between the height of maximal pressure and the height of basal metabolism. The gravity of the clinical manifestations of hypertensive disease does not necessarily depend on the height of the maximal pressure. They found that basal metabolism in cases of compensation and of mild decompensation is normal or near normal, even in the presence of severe hypertension. The thyrogenous form of hypertension, however, is accompanied as a rule by increased basal metabolism.

CANCER OF THE LARYNX AS A MEDICAL PROBLEM

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Louisville

Cancer of the larynx is unfortunately a very common disease, occurring in 2% of the body malignancies. This figure is given as high as 4% by some observers. Therefore, it should be considered as a medical problem from the standpoint of early diagnosis and treatment. The title of this paper has been brought forcefully to my mind after seeing a number of cases that had been allowed to go on indefinitely, with hoarseness treated as chronic laryngitis, when a correct diagnosis was made, surgery was out of the question, and the end too near for the patient.

The etiology of cancer of the larynx has an unknown exciting cause. Other types of malignant growths in the larynx are rare. The possible predisposing causes are: foremost, vocal abuse, the irritating effects of hot food, tobacco and alcohol are mentioned by most authors. There is no doubt that age is a definite factor. Sex is not a cause but statistics show the incidence is 12 to 1 in the male. Sarcoma may occur in the very young. The cancer age is regarded as being from 40 to 60 years and statistics show the occurrence of malignant disease of the larynx very rare before the age of 25. The youngest case of laryngeal cancer in my experience has been in a patient 32 years of age.

The lesions of the larynx are best divided into two locations: (1) The intrinsic lesions which have their origin in the vocal cords, the ventricular bands, and the ventricular pouch. Fortunately the intrinsic form occurs in about 70% of the cases and the more frequent location is in the anterior one-third of the true vocal cord. (2) The extrinsic lesions are only occasionally seen in the female and may arise from the epiglottis, the arytenoids, the pyriform sinuses, the cricoid cartilage, or an extension of the intrinsic form. The extrinsic lesion may readily involve the adjacent structures, while the intrinsic form as a rule metastasizes relatively late. This shows the great clinical importance of the lymphatic system where drainage is very poor as compared to almost any other region of the body. This, together with

the barrier of cartilage, explains why intrinsic lesions of the larynx may go as long sometimes as two years without much spread of the lesion.

The earliest and most common symptom is hoarseness and is always present in cancer or benign tumors involving the vocal cords. Cancer of the larynx, however, may be present without producing hoarseness for a long time. The absence of hoarseness is noted in growths above the glottic level. Cough is usually present and becomes wheezy in character as the disease progresses. Pain is not an early symptom and as the lesion progresses it usually occurs in the ear on the affected side, which is not peculiar to cancer but occurs practically in every kind of ulcerative disease in the later stages. The later signs are aphonia, dysphagia, dyspnea, fetor, glandular involvement, hemorrhage, emaciation, and then an exaggeration of all of these to the end.

The importance of early diagnosis is clearly indicated by the statistics showing 80 to 85% of the cases of cancer of the larynx are curable. A definite diagnosis of all cases of cancer of the larynx can be made today from the symptoms, the appearance of the larynx visualized by the laryngeal mirror, and direct laryngoscopy with biopsy. The laryngeal mirror makes possible the visualization of early laryngeal disease as satisfactorily as the ophthalmoscope will the retinal changes, except where an overhanging epiglottis obscures the view of the anterior commissure. Then direct laryngoscopy is forcefully indicated. The direct laryngoscope affords a visual study of the entire larynx as well as the taking of biopsy. There is no contraindication to the taking of a biopsy from the larynx, and it can be done with no shock and very little discomfort on any patient that can open the mouth.

Cancer of the larynx has to be differentiated primarily from syphilitic laryngitis, tuberculosis laryngitis, perichondritis, and benign growths of the larynx. Like any other medical problem, this one is well approached by a blood count, Wasserman test, x-ray of the chest and often of the larynx, and then a complete laryngeal study. In syphilitic laryngitis the hoarseness is most often low pitched and brassy in character. In cancer it is more often high pitched. Pain is usually absent in leucic lesions. If the Wassermann is positive, cancer is not excluded

unless the lesion disappears under treatment. Tuberculous laryngitis is characterized by hoarseness with pain. A pale edema of the arytenoids is frequently seen with ulceration. If there is pulmonary tuberculosis the laryngeal lesion may or may not be tuberculous. If the laryngoscopic appearance is doubtful a specimen is taken. The literature reports cases of combined lesions of lues, tuberculosis, and cancer in the same larynx, and the tuberculosis process will destroy cancerous tissue just as it does every other tissue.

The prognosis is in definite proportion to the stage of the disease. Therefore, the plea for early diagnosis of malignant disease should be cried as loudly for cancer of the larynx as anywhere in the body. If the patient is to have a voice, early diagnosis is the solution.

The treatment depends chiefly on two factors: First the location of the lesion, and second the extent of the disease. Surgery in the selected cases given by the literature shows a cure in 80 to 85% of the cases; x-ray alone in about 35%. Surgery of the larynx is best followed by two successful plans. The first plan is laryngo-fissure for lesion of the vocal cords, where by opening the larynx by the fissure the lesion can be excised, thus leaving a voice box and a functioning voice. The second plan, where the disease is extensive, but can be extirpated by a total laryngectomy. This leaves the patient to breathe through his neck and no voice until he learns to produce a whispered voice with his buccal cavity or by the use of an artificial larynx.

DISCUSSION

Alex M. Forrester, Louisville: Cancer of the larynx is crying for an early diagnosis, as is cancer in the other parts of the body. Several factors in our favor render early recognition possible. The larynx is a most accessible organ, not only to indirect and direct vision but to instrumentation and the taking of biopsy material by direct laryngoscopy. As you have heard Dr. Bumgardner say, the mirror examination is all important in the early diagnosis of laryngeal lesions and is a maneuver too often neglected or done half-heartedly. No mirror examination is complete without visualization of the anterior commissure where most of the early lesions occur. Occasionally the overhanging epiglottis will give trouble, but if after thorough cocaineization, it can be held away by the probe, and materially aids one. And being unable to satisfy yourself

that the mirror examination does not reveal the nature of the trouble direct laryngoscopy should be resorted to.

There are several forces of nature in our favor in slowing the advancement of the intrinsic growths of the larynx. First, the cordal lesions are slow growing at first and follow the free margin of the cord where they are most accessible to biopsy. Biopsy of course, is the main thing in making the diagnosis. Second, the hyaline cartilaginous box of the larynx offers a barrier to growth as well as the poor lymphatic supply. The cartilage of the larynx is rarely involved unless a pyogenic process has preceded it. Several pre-cancerous conditions that run along for years as chronic laryngitis should be recognized and proper treatment instituted early. One of the most common of these are multiple papillomata. Perhaps less than 2% undergo malignant change, however, the patient should be warned of this and observed at regular intervals so that any malignant change can be intercepted at an early date.

Quite a recent advance has been made in the use of the laminograph in diagnosing the extent of advanced lesions of the larynx. Especially is this helpful in lesions advancing in the subglottic area where the treatment is changed from laryngectomy to x-ray because of the excessive infiltration observed in the laminograph and not apparent in the direct laryngoscopic examination.

Oscar O. Miller, Louisville: It is rather interesting to note that all the students in the University are taught the use of the laryngeal mirror, and yet it is rather surprising how few of them when they get into practice will utilize the mirror for the diagnosis of these chronic cases of hoarseness.

One point in the technic I would suggest is to avoid pushing the mirror against the posterior pharyngeal wall, because if that is done it will gag the patient invariably.

One of the diagnostic points in cancer of the larynx is the so-called thyroid crepitation; that is, to take hold of the thyroid and move it from side to side. In cancerous lesions very often that crepitation is absent to touch when you move the larynx from side to side.

One of the criteria for x-ray therapy is, after a few initial doses of x-ray, to find return of function to the previously immobilized cord, which is considered a criterion for continuation of x-ray therapy.

In the differential diagnosis between tuberculosis of the larynx and cancer, Dr. Bumgardner and the other speaker have mentioned the anatomical location, that cancer of the larynx frequently involves the cartilages, is on the anterior cords, whereas tuberculosis more frequently involves the arytenoids and the posterior part of

the larynx.

In my experience, pain in the larynx has not been a constant concomitant of early tuberculosis. You get pain when it becomes extrinsic and begins to involve the epiglottis and aryepiglottic folds.

Another method in differential diagnosis, of course, is that one almost never sees a tuberculosis of the larynx without pulmonary tuberculosis. We do know that there are a few rare cases in the literature of tuberculous tracheobronchitis with a negative x-ray and a positive sputum, but they are exceedingly rare, and one should emphasize the necessity of examining the larynx in all cases of chronic hoarseness and chronic cough. Cough without hoarseness but no pathological findings in the chest certainly warrants an examination of the upper respiratory tract, particularly the larynx.

BOOK REVIEWS

A MANUAL FOR DIABETIC PATIENTS, by W. D. Sansum, M.D., with Alfred E. Koehler, M.D., Ph.D., and Ruth Bowden, B.S. members of the Metabolic Research of the Santa Barbara Cottage Hospital, California. The Macmillan Company, Publishers. New York. Price, \$3.25.

Twenty-five years ago no diabetic patient could hope to lead a normal life, or could be sure of escaping the dreaded coma even by strict adherence to the starvation diets which were necessary at that time. When the discovery of insulin made possible more nearly normal diets, Dr. W. D. Sansum was one of the first to improve its manufacture in this country and to develop the new dietary regimes. Since the recent introduction of modified insulin and the further development of the "adequate carbohydrate diet," the diabetic patient has been free to live, more than ever before, the life of a person in normal health.

With this progress in medical research, the patient's cooperation with his physician has become increasingly important. In order to control the disorder and at the same time to enjoy a normal life, he must understand the fundamental principles on which the physician's instructions are based, and must know how to carry out these directions in actual daily practice. To assist him, Dr. Sansum and his associates at The Sansum Clinic have prepared this manual. It represents the fruit of their long experience in research and in the care and teaching of diabetic patients.

ENDOCRINE GYNECOLOGY, by E. C. Hamblen, B. S., M. D., F. A. C. S. Associate Professor of Obstetrics and Gynecology, Duke University School of Medicine, Gynecologist in

Charge of the Endocrine Division and Sex Endocrine Clinic, Duke University Hospital, Durham, North Carolina. Foreword by J. B. Collip, M.D., Gilman Cheney Professor of Biochemistry and Pathology Chemistry, McGill University, Montreal. Charles C. Thomas, Publishers, Springfield, Illinois, Baltimore, Maryland. Price \$5.50.

The basis of the material used in this volume is an amplification of a series of lectures on endocrine gynecology given by the author before classes of medical students. The general practitioner as well as the surgeon who are interested in the subject will find this a helpful as well as a timely volume. The illustrations are numerous and well chosen.

PROCTOSCOPIC EXAMINATION AND DIAGNOSIS AND TREATMENT OF DIARRHEAS, by M. H. Streicher, M. S., M. D., University of Illinois College of Medicine Research and Educational Hospital and Grant Hospital of Chicago. Charles C. Thomas, Publishers, Springfield, Illinois, Baltimore, Maryland. Price \$3.00.

The object of this volume is to present a brief, clear method of proctoscopic examination and to outline the diagnosis and treatment of the most common forms of diarrheas. Its perusal will give the general practitioner, the surgeon and the medical student a clearer concept of this often too neglected region.

POPULATION, RACE AND EUGENICS, by Morris Siegel, M.D. Published by the author, 546 Barton St., East Hamilton, Ontario. Price, \$3.00.

The physician should be the torch bearer in the fields of eugenics and this volume is small and compact and will aid in understanding many phases of the subject, of which Sir Francis Galton, the founder of modern eugenics, gives the following adequate definition: Eugenics is the study of agencies under social control that may improve or impair the racial qualities of future generations, either physically or mentally.

THE VITAMINS. A symposium arranged under the auspices of the Council on Pharmacy and Chemistry and the Council on Foods of the American Medical Association. American Medical Association, Chicago, Publishers.

This volume represents the views of a considerable number of authorities who have endeavored to summarize the available knowledge concerning certain phases of vitamin study.

Each vitamin is described in detail not only as it affects the human but also the animal.

EDITORIALS

ARE YOU DOING YOUR BIT?

Dr. J. Arthur Myers, Professor of Preventive Medicine, University of Minnesota, recently pointed out that in the offices of a large number of physicians in the United States, the examination for the presence of tuberculous infection has become as routine as that for syphilitic infection. Literally millions of such examinations are performed annually. The procedure now in practice has become extremely effective in leading to detection of unsuspected pulmonary tuberculosis. To emphasize his point, he calls attention to the fact that the Surgeon General of the United States Public Health Service, Dr. Thomas J. Parran, Jr., has seen the great value of this program and has said that the entire population of the United States should be tuberculin tested and that X-ray examinations should be made of the chest, of the reactors, together with other phases of the examination necessary to diagnose of the existing tuberculosis in this country.

Since it is only the person with the tubercle bacilli who becomes ill from tuberculosis, the first point to be determined in any medical examination is whether any such infection exists. We should always keep clearly in mind the simple fact that without tubercle germs there can be no tuberculosis. It is a simple matter to determine the presence of tubercle germs in the bodies of our patients. The value of the tuberculin test has been sufficiently demonstrated to justify its use in a routine way in the offices of our alert physicians throughout the state of Kentucky.

The knowledge of the fact that tubercle germs are present in our patients would help us to be conscious of the possibilities of existing tuberculous disease and enable us more intelligently to seek to prove its presence or rule it out by eliminating procedures.

We are all conscious of the significance of the tuberculosis problem in Kentucky today. We know that our death rate runs high. We know that we have thousands of cases of tuberculosis, many of them spreading their infectious material wherever they go, thus endangering the lives of those with whom they come in contact. We know that hospitalization is beyond the reach of most of these cases, because there are no funds with which to provide it. We have not been successful in convincing legislators that our hospitalization program for the

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NEXT MEETING: LEXINGTON
1940

tuberculous is of sufficient importance to justify the necessary expenditure of state funds. We have not seemed to realize that there was a time when every one of these advanced cases of tuberculosis could have been cured; so let's arouse ourselves to the consciousness that early tuberculosis can be cured, and it can be cured in the home with no other assistance than the practicing physicians are able to give to intelligent patients.

Let us also realize that we have the tremendous responsibility to see that all coming under our care avail themselves of this method of escaping the hazards of neglected tuberculosis. Let us remember that tuberculosis can be cured when it is found early and that the tuberculin test is of vital importance in starting the alert physician on the trail of the tubercle germs long before signs or symptoms appear.

When the physicians of Kentucky make the tuberculin test a routine office procedure, when they follow all reactors with an X-Ray and a careful physical examination, we will have gone far toward bringing tuberculosis under control in Kentucky; and the public at large will recognize their family physicians as being thorough and dependable in the procedures that tend to promote health and happiness as well as prevent disease. ARE YOU DOING YOUR BIT?"

SOUTHEASTERN SURGICAL CONGRESS

The Southeastern Surgical Congress will hold its Eleventh Annual Assembly in Birmingham on March 11, 12 and 13, 1940 at the Tutwiler Hotel. The completed programs will be mailed out about February 15. For information, write Dr. B. T. Beasley, Secretary-Treasurer, 701 Hurt Building, Atlanta, Georgia.

Many members of the Kentucky State Medical Association had the opportunity and privilege of attending the Southeastern Surgical Congress during its Louisville session. Dr. Beasley and his associates have built up a splendid organization, and it is a pleasure to extend the above invitation to every physician in Kentucky who is interested in the progress of medical practice.

PERTINENT QUESTIONS AND ANSWERS CONCERNING THE LAW FOR PREVENTION AND SPREAD OF VENEREAL DISEASES IN MARRIAGE.

1. What is the Premarital Law?

The Premarital Law is a law passed by the General Assembly of Kentucky in 1938, requiring that all persons making applications for marriage license shall be free of any or all venereal diseases as determined by an appropriate examination at the hands of a qualified physician.

2. When does this law go into effect?

March 1, 1940.

3. What objective has this law?

Prevention, insofar as possible, of the transmission of venereal diseases in marriage.

4. Who shall be examined under the law?

All applicants, both male and female, residents or non-residents, for marriage licenses after March 1, 1940.

5. Who shall examine these applicants?

Their respective private physicians, or in case of applicants who are economically unable to afford an examination at the hands of a private physician, the County Health Officer shall do the examinations.

6. Of what shall the examination consist?

Of such physical examination as, in the judgment of the examining physician, is necessary to detect any evidence of the presence in the applicant of any venereal disease which is, or may later become, communicable.

In addition to a physical examination of the applicants, the law requires that appropriate laboratory tests be done in an effort to detect the presence of a venereal infection. A serological test for syphilis is required by the law on each applicant, regardless of whether there is any physical or historical evidence of syphilis. The preferred serological test is the Kahn Diagnostic Test. However, the Kline, Eagle, Hinton, Kolmer Modification of the Wassermann or any other serological test approved by the State Department of Health of Kentucky will be recognized as satisfactory. When there are open lesions present, a Darkfield examination shall be done.

A smear for the detection of gonococci is required by the law when there are clinical indications for such a test.

For any other venereal diseases appropriate clinical and laboratory tests shall be done where physical findings indicate. For example: Frei test for Lymphopathia venerea, microscopic test for Ducrey's bacillus.

7. What laboratories shall do the laboratory tests?

Only the Laboratory of the State Department of Health or such private laboratories as have been approved by the State Board of Health to do these tests.

8. What is the physician's duty to the marriage license applicants after completing the examination and receiving the laboratory results?

If no evidence of any venereal disease is found, either clinically or by laboratory procedure, the physician shall present to the applicant, on a form prescribed by the State Commissioner of Health and furnished by the State Department of Health, a certificate stating that the physician's diagnosis indicates that the applicant is free from a venereal disease. No laboratory reports or physical findings will be presented to the Clerk issuing the license. The autonomy of the physician in arriving at a diagnosis as to the presence or absence of a venereal disease in an applicant is preserved so long as he exercises this prerogative honestly, the physician being expected to make such examination as would be expected reasonably to detect the presence or absence of a venereal disease.

9. What should the examining physician do in case he finds an applicant suffering from a venereal disease?

He should immediately report the case by name, initial or date of birth to the local health officer, as required by law, and should advise the individual immediately to start appropriate treatment, if indicated, or if unable to pay for private treatment, he or she should be instructed to report for treatment to the health officer of the county or city in which the patient resides, in accordance with the laws, rules and regulations relating to Public Health in Kentucky. When the applicants, either or both, have received such treatment as is considered adequate to render the disease or diseases non-communicable and assure so far as possible, that the

disease or diseases will not lapse into a communicable stage, a medical certificate for obtaining a marriage license may then be issued.

10. What shall the applicants do with the medical certificates furnished them respectively by the examining physician or physicians?

Both applicants, male and female, shall file these certificates with the County Court Clerk at the time the marriage license is applied for.

11. Under what conditions may applicants who are suffering from one or more venereal diseases obtain marriage licenses?

When the female applicant is pregnant and marriage will confer legitimacy on the unborn child, the County Judge may then determine the question of pregnancy on medical testimony and, if the female is found to be pregnant, the County Judge may order the license issued regardless of whether one or both applicants have a venereal disease. The County Judge shall, however, under such a circumstance, order that the diseased applicant or applicants shall undergo treatment as provided for by the State Board of Health of Kentucky.

12. Under what other circumstances may applicants for marriage licenses, who are suffering from one or more venereal diseases, obtain such license?

When both applicants have the same venereal disease and one or both are sterile. In this case, also, the County Judge shall require that both parties to such a marriage shall be treated appropriately for the venereal disease, or diseases, from which they are suffering, as provided for by the State Board of Health of Kentucky.

13. What recourse has an applicant, or applicants, who have been refused marriage license?

Such applicant, or applicants, may appeal, within 60 days from date of refusal, to the Circuit Court in the county where the application was denied. The Judge shall try the case summarily without the intervention of a jury, upon the evidence presented by the medical examiner, or examiners, and such other evidence as may be offered and if the applicant is found free of venereal diseases the Court may order that the license be issued.

14. How long is a marriage license obtained under conditions of this act

good?

For thirty days from date of issue.

15. What is to be done with this certificate?

It is to be filed in the office of the County Court Clerk.

16. What is the penalty under this Act for a County Clerk issuing a marriage license without a certificate of freedom from venereal disease?

\$100.00 fine and thirty days in jail, one or both.

17. What is the penalty for a physician making a false statement in a certificate for issuance of a marriage license?

\$100.00 fine and thirty days in jail, one or both. The physician also is subject to revocation of his license to practice under the Medical Practice Act.

For their own protection, physicians are urged to make and keep a record of the history, physical findings, and laboratory results obtained on each marriage license applicant examined.

IN MEMORIAM

Dr. L. F. Robbins died at his home in Ashland, December 9, 1939. He was born in Mt. Olivet on April 14, 1864, and at the age of six he moved with his parents to Carlisle. He began the practice of medicine at Newfound-land in Elliott County, later moved to Morgan, Bath and Rowan counties. In 1921 he located in Ashland, where he practiced his profession continuously until the time of his death.

Dr. Robbins was one of the well loved characters of his community and of every community in which he lived. He belonged to the old type of family physicians of the horse and buggy days. He was an inspiration to the young men in his community and was in the truest sense a doctor. He was buried at Salt Lick.

NEWS ITEMS

The annual meeting of Region One of the American Academy of Pediatrics will be held in Washington, April 4, 5 and 6 at the Mayflower Hotel. Further information may be secured by writing to the Chairman of Publicity, Dr. Wm. F. O'Donnell, Washington, D. C.

The following officers were elected for the coming year for the Kentucky Baptist Hospital staff: Dr. Franklin Jelsma, president; Dr. Dougal M. Dollar, vice-president; and Dr. R. I. Kerr, secretary-treasurer.

COUNTY SOCIETY NOTES

Harrison: The Harrison County Medical Society held its annual meeting and dinner at the Hotel Harrison, December 4, 1939.

Members and visitors present at the meeting were: Drs. Rees, McMurtry, W. B. Moore, Midden, Smiser, McIlvain, Moody, N. W. Moore, Ross, Swinford, Blount, Todd, Wyles, McNeely and Brumback. Dr. Gordon McKim, Cincinnati; John Scott, Sam Marks, VanMeter and Alley, Lexington; Drs. Orr, Rickman, Pittinger, Blake, Anderson, Hart and Kinney, Paris.

The meeting was called to order by President, G. H. Ross, for the purpose of electing officers for the year 1940. The election resulted as follows: R. T. McMurtry, president; J. P. Wyles, vice-president; W. B. Moore, secretary-treasurer; J. P. Wyles, delegate to the State Association, and H. T. Smiser, alternate; censors, H. H. Moody and H. C. Blount.

After an excellent dinner informal talks were made by Drs. McKim, John Scott, Sam Marks, Orr, Pittinger and others.

Meeting adjourned.

W. B. MOORE, Secretary.

Knox County: Dr. James Samuel Lock, former president and member of the Council of the Kentucky State Medical Association, age 65 years, died December 12, 1939, of nephritis. He was born August 14, 1874. Was a graduate of the College of Physicians and Surgeons, St. Louis, in April, 1899. After graduation, he practiced medicine at Barbourville, until 1912, when he became Field Director for the Kentucky State Board of Health in connection with the Rockefeller Foundation doing research work for the eradication of hookworm disease.

In 1919 he was appointed Executive Secretary of the State Tuberculosis Association, which position he held until his retirement on account of ill health in 1930. Dr. Lock was past president of the Knox County and Kentucky Medical Society.

Pike: The Pike County Medical Society held its regular monthly meeting in the auditorium of the Kentucky-W. Virginia Power Co., building Monday night January 15, 1940. M. D. Flannery of Pikeville read a paper on Inguinal Hernia. The following physicians were present; Drs. H. I. Berman, W. C. Gose, Paul Gronnerud, Frank Vernon, Henry Kaminski, S. B. Casebolt, W. J. Walters, W. C. Thomas and F. H. Hodges, of Pikeville, Frank Burian of McVeigh and L. A. Wahle of Hardy.

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PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

CARCINOMA OF THE COLON

D. P. HALL, M. D., F.A.C.S.

Louisville

In any general resume of carcinoma of the colon the rectum must be considered because of its direct continuous relation and as the recipient of the same general influences accorded by nature to the left colon.

A few of the problems relative to carcinomata of the colon can best be understood by recapturing some of the ideas taught and practiced by our surgical progenitors before the advent of this, the golden age of surgery.

Many accounts relative to surgery are found in the Bible, one is recorded in Chronicles, the affliction accorded Jehoram, son of Jehoshaphat: "And after all this the Lord smote him in his bowels with an incurable disease." "And it came to pass, that in process of time, after the end of two years, his bowels fell out by reason of his sickness; so he died of sore disease." Certainly in the light of the present we must interpret his affliction as one of carcinoma of the intestine with emphasis on carcinoma of the colon; first, an incurable disease of the bowel; second, a foul discharge; third, two years of life followed his being smote. We are all well aware of the position carcinoma of the colon has had in the past and indeed until the last ten years on the scale of curability, all know offensive discharges notoriously originate in the left half of the colon, and we have for years prognosticated death within two years in all cases of carcinoma of the colon without surgical aid.

Nelaton, of catheter fame, was the first to institute enterostomy. Littre in 1710 proposed colostomy; in 1776 Pillore performed the first successful right iliac colostomy. Fine, in 1797 performed colostomy in the transverse colon (umbilical). Karl Maydl successfully performed an abdominal colostomy in 1888. During 1839 Amussat performed an extraperitoneal colostomy. G. Dupuytren, the surgical pirate and remembered for the contracture bearing his name, was father of the enterotome and the master of its use.

During 1876, Dr. John G. Blake published, in the Boston Medical and Surgical Journal, a clinical description of what

must have been a cancerous obstruction of the large bowel. A man of middle age came under his care, whose bowels quietly, but suddenly, ceased to move and remained obstructed for eighteen weeks, followed by death. Near the end of this period a quantity of changed blood and fecal material passed. Dr. Blake kept the patient alive by repeatedly puncturing the distended bowel with a needle allowing the escape of gas, amazingly enough he punctured the colon thru the abdomen one hundred and fifty times. Among the many consultants was the gentleman of "Y" ligament and lithotrite fame, Dr. Henry J. Bigelow, yet no one advocated surgery.

At this late date appropriate operations for artificial anus had been devised and long practiced. Both the right and left colon could be drained extraperitoneally through incisions in either loin. But there resulted utterly uncontrollable exits with a discharge of fecal material in a site where apparatus or bandage offered no relief to this intolerable situation. Resections of the colon were not the order of the day, but temporization until death ensued. The surgical pride of Philadelphia, John Ashurst, Jr., in 1895 stated that he was not disposed to urge colostomy as long as defecation per via naturalis was at all practicable. The horror of an artificial anus became so fixed in the minds of both laity and the profession that even today with a remarkably efficient artificial opening, made livable and workable by a dietary regime, much of the same feeling persists.

It was not until the late nineties that anterior colostomy attained deserved popularity through efforts of the younger Allingham and Mr. Harrison Cripps in England, followed by Dr. Alfred Bodine in America, (a graduate of the University of Louisville and nephew of its long time Dean, Dr. James M. Bodine).

No surgeon versed in operative surgery will soon forget Mikulicz, and Czerny, both pupils of the great Billroth; Doyen of the ecraseur; Lembert, whose method of suturing is the handmaid of every finished surgeon; Paul Kraske, originator of the perineal approach, with removal of the coccyx for resection of the rectum. All pioneered to make surgery of the colon reach its present state, all called Europe their homeland, but it remained for intrepid and inventive American surgeons

to develop colonic surgery to a plane comparable in success to surgery in malignancy of the breast and uterus. Samuel D. Gross, second professor of surgery in the University of Louisville, was the first to practice enterorrhaphy; Nicholas Senn, Swiss American surgeon, introduced decalcified bone plates for anastomosis; Robert Abbe, New York's master surgeon, first used catgut rings for intestinal union, Penrose and Ashton used india-rubber plates followed by Dawbarn, who used raw potato or turnip plates because of absorption; and John B. Murphy, the Stormy Petrel of Surgery and surgical showman of the world, inventor of the most ingenious surgical contrivance in our time, "The Murphy Button." This little trick had more influence on surgery of the colon in malignant tumors than all the combined efforts before its birth. It facilitated resection of the tumor bearing intestine by its ease and simplicity of use, with safety, in colonic and intestinal anastomosis. In America at the beginning of the 1900s, Weir, Abbe, and Halsted were the apostles of anastomosis after resection by the simple suture method.

That carcinoma is the most frequently encountered neoplasm in the colon is not questioned. The apparent increase in its incidence, together with cancer in general, is very probably due to two factors; first that a larger number is recognized than formerly because of modern means of diagnosis; second, that cancer is chiefly a disease of middle and later life. The average life of man, which was formerly forty two years, has been increased during the twentieth century to fifty eight years, so that a greater number of people are reaching the "cancer age." In other words the supposed frequency of the disease is a credit to improved methods of diagnosis and increased longevity.

Of the entire intestinal tract ninety-nine per cent of carcinomata are found in the colon. The two mobile terminal segments of the colon, the cecum and sigmoid, are most frequently involved. If one wishes to be more specific and separate the rectum and rectosigmoid from the large intestinal tube, approximately thirty-six per cent are found in the true colon, with sixty four per cent in the rectum and rectosigmoid. The frequency of malignant neoplasms of the large intestine as to site is: First, rectum; second,

sigmoid; third, cecum; fourth, ascending colon; fifth, splenic flexure; and sixth, hepatic flexure.

The origin of carcinoma of the colon like carcinoma elsewhere still remains elusive, although progress has been made in respect to its predisposing and contributing causes. There seems to be no question that many carcinomata in this region develop on the base of transformed adenomatous cells. We also have much evidence available that polypi have a close relation, especially, when one finds polypi on proctoscopic or sigmoidoscopic visualization and later finds carcinoma in this same area; this we have noted on two occasions. One of these, a male 52 years of age, presented a rectosigmoid polyp and a biopsy obtained, the report was benign polyp. Within six months we again did a sigmoidoscopic examination to determine the causative factor in a slight bleeding from the rectum and much to our chagrin found a large ulcerated carcinomatous area in the rectosigmoid corresponding to the area of the former polyp which was removed six months earlier for biopsy. During 1936 a female in her sixty first year was referred, from Indiana. A note from her physician stated that some nine months before a polyp was removed for biopsy, which was situated just above the rectosigmoidal junction. This was reported by the pathologist of an Indianapolis hospital as a benign polyp, yet on our examination an unmistakable carcinoma was found. She was operated upon using the Miles one stage abdomino-perineal resection of the sigmoid and rectum.

We have found the best working classification to think of carcinoma of the colon as being two types. First, adenocarcinoma of the cauliflower, bleeding variety, found in the right half of the colon and seldom producing complete stenosis; second, the scirrhus type carcinoma, selecting the left half of colon, hard, unyielding, not prone to bleed unless near the rectosigmoid where ulceration may occur, more likely to encircle the bowel forming the so-called annular, napkin ring type the producer of many complete obstructions, late to metastasize and most favorable type for operative intervention.

Metastasis in carcinoma of the colon as a rule occurs later than carcinoma on any other portion of the gastro-intestinal

tract, the lymphatic system is much less in extent and paucity of nodes as compared to other portions. It has been definitely observed that metastasis may occur in the liver without any manifestation in the lymphatics. This fact was noted by my associate, Dr. J. Garland Sherrill, as early as 1910 and published in the New York Medical Journal. We have personally observed this on four occasions. Many lymph glands are found in operating upon the colon for malignancy to be enlarged and later reported by the pathologist to be inflammatory proving to our own satisfaction the plausibility of late metastasis. Metastasis by direct extension represents a very late stage of the disease, manifested by a general peritoneal carcinomatosis with extreme ascites.

The symptoms of carcinoma of the colon in the early stages are rather veiled and the onset is unfortunately usually insidious. There are no specific signs that would lead one to suspect the existence of a grave lesion and thus make an early diagnosis possible. There is no difficulty, however, in making a correct diagnosis when the late symptoms; blood, mucus, and a discharge of pus in the stools occur. Occasionally pain, tenderness and rigidity may furnish the clue as to the nature of the lesion, but these symptoms are too often masked by the state of health of the individual, giving no evidence of the coming of the storm. The X-ray here could be of great help and should always be considered to clear the situation. Blood in the stool should always be a spur to investigation.

Progressive constipation, diarrhea, followed by obstipation, must be looked upon with suspicion. A change in bowel habit, backache, and especially slight pain after eating or evacuation are suggestive of a serious lesion in the colon. Secondary anemia and weakness characterize malignancies of the right half of colon; a striking feature is the severity of the anemia without apparent loss of blood. The anemia is usually of the hypochromic or microcytic type. Cachexia, carcinemia, and general weakness are harbingers of dissolution and impending death.

One should remember that bleeding is a most frequent symptom in carcinoma of the rectum accompanied often with mucus and pus. Its intermittent appearance calls for immediate investigation.

Symptoms depend both on the charac-

ter and the location of the lesion in the colon. When the lesion occurs in the region of the cecum, symptoms of appendicitis may suddenly appear due to the inflammation surrounding the cancer. A mass is felt, often ascribed to an appendiceal abscess. When the abdomen is opened the true nature of the cause that gave rise to the symptoms is revealed. It is in these situations that one must possess the adroitness of a D. Hayes Agnew, "he of the flashing scalpel," pray for the sangfroid of the late Allen B. Kanavel and wishes for the composure of a McMurtry.

When the tumor occurs in the descending colon where the constructive type of carcinoma is generally found, obstructive symptoms and increasing constipation should lead one to a probable diagnosis. Richard Bright became one of Medicine's Immortals through the medium of his classical description of the disease bearing his name. Many of us forget that he also painted one of the most vivid pictures of acute intestinal obstruction, to quote Bright; "An old gentleman was seized with an acute pain in the abdomen, with great prostration, no movement of the bowel or passage of gases, a sunken and pallid countenance, with small frequent pulse followed by distention and fecalobolious vomiting; death which had pursued was rewarded on the third day of illness." This we take to be a remarkable likeness to acute cancerous obstruction of the sigmoid. Fecal vomiting with resulting loss in chlorides is not an early sign in colonic obstruction but late and its significance should be impressed on every student of medicine as an omen of impending death. Many with extensive experience in this field feel that malignant tumors of the constrictive type in the colon exist eight to nine months before any signs are apparent. We can readily subscribe to this conclusion since seeing a patient recently admitted for operation who had signs of intestinal obstruction for the previous eleven months. The lesion was situated in the splenic flexure without radiological evidence of obstruction. In many obstructive lesions of the sigmoid one often finds on examination of the rectum, it to be empty and ballooned. This phenomena has for many years been frequently observed by my associate, Dr. J. Garland Sherrill.

In a review of twenty-eight unselected cases of carcinoma of the colon admitted

to the Louisville City Hospital, twenty had noticeable symptoms for eleven months prior to admission; eighteen with obstructive symptoms of which sixteen were acute; twenty-two had bleeding of which fifteen reported it as the chief complaint for seeking relief; three presented alternate diarrhea and constipation. In a series of forty-seven of our private patients with malignancy of the colon, thirty-eight had symptoms extending over nine months; twenty-seven obstructive in character, of which nineteen were acute; twenty-nine had noted bleeding, one had been operated upon for hemorrhoids for control of rectal bleeding three months before our examination; six complained of alternate diarrhea and constipation.

Reliable statistics state that cancer in general is increasing at the rate of 15% per year and the incidence of carcinoma of the colon has an even greater increase.

Any individual past thirty years with indefinite abdominal symptoms, should have a digital examination of the rectum as a large number of lesions, of a malignant character are found in the rectum within finger reach of the anus, at least sixty per cent. All should submit to a sigmoidoscopic visualization in the inverted position, first used by Dr. Granville Hanes, followed by X-ray examination of colon. It can not be too strongly advised that should an X-ray with barium enema prove negative and the symptoms persist, that it be repeated. This was very positively brought to our attention in the person of a man sixty-eight who was X-rayed after barium enema, three months previous he had been X-rayed by one of our best roentgenologists, who gave a negative report, although on this report a partially obstructing lesion was reported. At operation an annular carcinoma of the sigmoid was found.

When a mass is felt in any portion of the colon, a differential diagnosis between similar lesions of other organs in the same neighborhood must be made. Most of the errors in diagnosis are made when a mass is felt in the right iliac fossa. To illustrate: A patient presented a mass in the right iliac region, which was fixed, had been present for five months and accompanied with intermittent gaseous distention. The X-ray report informed us of a constant filling defect in the cecum, most probably carcinoma; at operation a large mucocele of the appendix was pre-

sent, invaginated into the cecum thus producing a typical X-ray picture of cancer of the cecum.

In thin individuals one may occasionally, with some degree of certainty, outline malignant lesions of the cecum, ascending, transverse, and descending colon, but growths of the hepatic and splenic flexure by reason of their anatomical location, elude the palpating hand.

An acute diverticulitis, especially in the descending colon, often results in an unpleasant night both for the surgeon and patient because at times a perforated sigmoidal diverticulum with abscess may be difficult to differentiate from carcinoma without submitting a poor risk to the vicissitudes of a hazardous operation. This sort of predicament might bring one to think as the late versatile and lovable John Chalmers DaCosta, professor of surgery in the Jefferson Medical College, when he uttered these prophetic words; "Diagnosis by intuition is a rapid method of reaching a wrong conclusion."

How often in patients with cancer of the cecum a diagnosis of pernicious anemia is made, indeed off hand without aid of the laboratory and so treated by various liver and stomach preparations. Mr. O. G., aged fifty-two, whose cecum and ileocecal valve harbored a typical cancer, was treated by a physician for eight months for pernicious anemia. On admission to the hospital with signs of obstruction, his blood examination revealed no typical signs of pernicious anemia.

Regional ileitis recently much described, must be considered in lesions occurring in the terminal ileum and cecum; nonspecific granuloma, as it is known in the large gut, may give the same symptom complex, simulating cancer to a remarkable degree. When occurring in the terminal ileum a diagnosis by X-ray on observing Kantors string sign is easily made. We have had two such cases in association with Dr. Sherrill, both the terminal ileum and cecum were resected in one stage with recovery.

Obesity should not be considered a guarantee against carcinoma of the colon or rectum at any time.

The experiences of a great many surgeons and X-ray men seem to agree that irradiation is of no value in carcinoma of the large gut; of this we can not postulate not having used irradiation either pre or post operatively, neither have we

tried intraperitoneal immunization with vaccines to control post operative infection but have relied on aseptic resections with a minimum of trauma to reduce our morbidity from infection.

Once a diagnosis of colonic malignancy is made, two questions immediately become paramount; the first concerns the surgeon, operability; is this malignant invasion operable? Only about sixty per cent are operable when seen by the surgeon. The second is of prime importance to both surgeon and patient, mortality; what may be expected as to immediate recovery and what of curability or recurrence?

Obstructive lesions of an acute nature should all be operated upon regardless of condition of the patient except he be in an obvious state of complete dissolution as may be evaluated by the mere tyro, one must of course limit his activities to drainage by colostomy proximal to the neoplasm. The operability of all other carcinomas depends on the judgment of physician and surgeon as to his general health but more especially to distant metastasis, which as a rule cannot be determined until the abdomen is explored. If the liver presents nodular masses one should desist from more operative manipulation as it is absolutely futile with liver metastasis. Involvement of the lymphatics should not preclude radical operation, since the hope that one may by block dissection remove all of the invaded lymphatics is ever present, and on the other hand one rarely can tell that the lymph nodes are malignant until they have been removed and examined microscopically. Enlarged nodes in the vicinity of a cancer may be innocuous; frequently, they are benign and inflammatory, secondary to ulceration and infection of the right colon and to infection proximal to the left colonic growth from stasis and retention due to its constrictive character. The latter condition often obtains and accounts for the frequent and well known *ulcus fecalis* with paradoxical diarrhea found in malignant neoplasms in the distal segment of the colon.

The proverbial aphorism; "To judge the future, one must drink deep of the present, and commune with the past," is also a guide in our evaluation of mortality, for only when one studies the past statistics in cancer of the colon and correlates them with the present, is a posi-

tion of prognostication tenable. Broders index of malignancy depending on the degree of cell differentiation is probably the most accurate prognostic method yet evolved. Twenty-five years back the immediate operative mortality was seventy per cent. From better methods in the treatment and earlier diagnosis most surgeons of average experience in this type of surgery are able to report an immediate operative mortality, at present, ranging from fifteen per cent, as did Wilkie, to thirty-eight, as collected in Australia; a fair figure in our country seems near thirty per cent.

Clinically one notes in youthful patients that carcinomatous lesions of the colon are characterized by their rapidity of metastasis and invasiveness, conversely, in the elderly when retrograde changes have supervened, retardation of growth, invasiveness and metastasis is the rule. Thus one may expect a greater number of operable cases in the older with more freedom of recurrence.

Twenty-five to thirty years ago eight-five per cent of those operated upon for relief of cancer of the colon succumbed to a recurrence within five years. At present twenty-five per cent to as high as fifty per cent, as many reports show, are alive without recurrence at the end of five years, an improvement of forty to sixty per cent in the mortality in this period.

Preoperatively all cases should have the intestinal tract cleansed unless obstructive symptoms are present when decompression is the rule. Any dehydration should be combated by an adequate supply of fluids, preferably glucose in isotonic saline, which seems to have the best effect when administered intravenously. We practice and are thoroughly sold on the value of preoperative blood transfusions, converting many poor risks into comparatively safe immediate risks; at times the hemoglobin is so low that several transfusions are required to give a rise in hemoglobin to forty or sixty per cent, this being the lowest safety level at which operative intervention should be considered in a chronic disease such as cancer, except in urgent obstructed lesions. Strict care in preoperative rehabilitation insures a lower morbidity and mortality.

We feel that spinal anesthesia is the one of choice after quite some experience,

affording easier manipulation and better relaxation which makes for safer expeditious surgery, its use on one patient in three operations on the colon within twelve days has convinced us of its efficacy in multiple stage procedures. Several inhalation anesthetics in a short space of time, we feel is not well borne, especially ether; the newer gases might suffice but we are not of the opinion that one gets the perfect relaxation as found after subarachnoid block with novocaine.

Radical resection of cancerous neoplasms of the large gut with its contiguous structures should always be effected, if humanly possible. However we are aware of many instances in which only the local growth without its adjacent tissues was excised resulting in prolongation of the patient's life in relative comfort for a one or two year period. For a death by obstruction is a rather horrible death, even for a steeled physician to contemplate.

In these days of multiple stage operations many of us are not aware that Mr. James Adams of the London Hospital as early as 1887 suggested to Sir William Allingham the advisability of doing a colostomy preliminary to excision of the rectum or rectosigmoid. Mr. Allingham at this time stated; "I have not yet tried the combined operation of colostomy followed by excision, but I am disposed to think there is much to commend it."

Much has been learned in the past few years concerning the various surgical procedures to employ in resective operations upon the colon but most have been built around the multiple stage exteriorization maneuver, as described by Paul of Liverpool, and Block of Copenhagen in 1892, and popularized by Mikulicz in 1902. The essentials of the procedure require mobilization of the tumor bearing area of the colon followed by extra-peritoneal fixation in double barrel fashion by suture of both proximal and distal loops together with suture to the peritoneum, the resulting loop being excised at a later time. Following the excision an enterotome as devised by Dupuytren or a heavy A. J. Ochsner clamp is inserted with open jaws into each gun barrel stoma and clamped, the crushing eventuates in destruction of the dividing spur, closure of the colostomy by nature in many cases ensues; this not obtaining, the operator must resort to the use of

suture. The great objection to this operation is the fear of transplantation of malignant cells in the skin, which is said to occur in about twelve per cent of the cases; we believe this figure is a little high.

We have demonstrated to our satisfaction that the obstructive resection as devised by Rankin possesses the advantage of the Paul-Mikulicz operation without risk of skin recurrences. The essentials of the Rankin operation of obstructive resection also require free mobilization and exteriorization of the tumor bearing segment of colon, but no attempt is made to suture the two limbs or unite the peritoneum to them, the gun barrel loop is immediately clamped flush with the skin and excised, followed in time by the spur crushing procedure. A cecostomy is desirable as a preliminary for decompression of the gut. We have used the latter technic in lesions involving the splenic flexure, descending colon and sigmoid without regret.

Carcinomata of the cecum, ascending colon, hepatic flexure and transverse colon, should receive a preliminary cecostomy after the method of Hendon or an ileostomy, feeling it imperative that the colon be decompressed allowing return of tone with subsidence of edema or inflammatory changes proximal to the lesion. An ileo transverse colostomy may be done as an alternate preliminary procedure, followed by resection of the right half of the colon with as much transverse as is deemed necessary. A primary resection was carried out in one of our cases but we do not feel its advocacy good surgical judgment in all such cases.

It is thought that a colostomy, cecostomy or ileostomy preceding segmental colectomy gives the surgeon an advantage of a seventeen per cent reduction in his immediate operative mortality. Mr. G. Grey Turner tersely remarks, that an acute obstruction of the carcinomatous colon may be a fortuitous circumstance for the patient because it obliges the surgeon to do the operation in two stages.

Since the advent of the Miller-Abbott tube for intestinal intubation we have resected one carcinoma of the hepatic flexure and two of the transverse colon in one stage. The fallacy of Senns contention that fecal content cannot escape in a retrograde manner through the ileocecal valve plus the increased use of an ileosto-

my when cecostomy is impossible led us to try intubation of the intestine into the terminal ileum followed by the use of continuous suction, thus decompressing the proximal colon and ileum. This procedure was continued for three days previous to the primary resections. We believe this to be a rational and safe method of approach in selected cases.

Carcinomata selecting the rectosigmoid and rectum have been in recent years the hub around which many operations have evolved. The operations devised by Rankin, J. Lockhart-Mummery and W. B. Gabriel of St. Marks Hospital in London as well as those of Mr. Grey Turner, Mr. W. Lawrence Abel and Mr. Ernest Miles, are few of the notable contributions to operations in this field.

Since seeing the work of Mr. Miles in London we are convinced that the operation devised by him, that is a one stage abdomino-perineal resection of the rectosigmoid and rectum combined with colostomy is the one of choice, and can be employed with little more risk than a two or three stage procedure. We are not of the opinion that in any of these operations a perineal colostomy is as desirable or satisfactory as an abdominal outlet.

Postoperatively the efficacy of the duodenal tube with siphonage or continuous suction cannot be disregarded, as a safeguard against distention and ileus. All should have fluids intravenously and most a blood transfusion. It has been our routine to use morphine for relief of pain and other discomforts in preference to any other drugs of this character except in some few displaying intolerance, substituting pantopin when necessary.

Surgeons assuming the responsibilities of colonic surgery must be willing to sacrifice time for detail in post operative care and forego an occasional Thursday afternoon of golf.

Some great principles in colonic surgery must always be observed: aseptic technique, coaptation without strangulation, decompression of the colon, short well nourished stumps, wide excision and the employment of an extraperitoneal procedure when feasible. To these one might add the trite exclamation of the John B. Deaver: "Cut well, sew well, and let the patient get well."

In conclusion it behooves all of us to be cancer minded relative to the colon,

since the earliest diagnosis is none too early. Conservatism, equivocation and temporization when dealing with malignancy of the colon, conserve the disease but kill the patient. To treat a case of carcinoma of the colon for several months for pernicious anemia is unpardonable, to treat one with rectal bleeding for hemorrhoids with rectal carcinoma in finger reach is tragic, to treat a sigmoidal carcinoma with intermittent partial obstruction for indigestion and gall bladder disease is pathetic, but to consign all patients with diagnosed carcinoma of the colon to the lot of incurables without the ministrations of surgery is inexcusable. Let us not hear the lamentations of the prophet Jeremiah: "Is there no balm in Gilead, is there no Physician there?"

MODERN THERAPY OF COMMON BLOOD STREAM INFECTIONS

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Since the prognosis of blood stream infections for many years was poor for life, except in exceptional cases, new fields of therapy, especially that of chemotherapy, have opened new avenues of treatment which presage a more optimistic outlook in such infections. Indeed now, when one is confronted with such an invasion of the blood stream, he has many therapeutic measures which are available and valuable. However, no one single measure should be used alone, for none of them are apparently specific, except in one instance, namely that of pneumococcus septicemia. We should utilize every available method until results are obtained.

The occurrence of infection is conditioned by resistance of the host, virulence of the bacteria, and the number of infecting organisms. Treatment should be designed to increase host resistance, and decreases virulence and number of infecting bacteria. Hence, clinical management of infections is as much a problem of antibodies and bacterial variants as of hot applications and surgery.

According to Champ Lyons of Boston, the virulence of the organism can be evaluated effectively by laboratory methods. He feels that there is one of the eleven

groups of hemolytic streptococcus responsible for the majority of infections. This one group, important as it is, contains twenty eight types and each of these types have four variant forms distinguished by certain biological conditions. It is important to know which variant is present in any one infection because such knowledge allows one to predict the course of the disease. Two of these variants are virulent, one is of low virulency and the last is completely avirulent.

According to a survey of blood stream infections at the Mayo Clinic from 1934 to 1936, including 144 cases with positive blood cultures, there was reported a combined mortality rate of 67%. Their treatment included transfusions, dyes and serums, serum and dyes; serums alone; and dyes alone; from which they concluded that "The mortality, while high, demonstrates that the condition is not hopeless." In cases in which there is a surgically accessible focus, such as mastoiditis without meningitis, results are good. Medical therapeutic measures used heretofore have possessed no constant specific value of the greatest benefit. These statistics form a base line for comparison in the future with results from the newer chemotherapy agents.

BLOOD CULTURES: They should be done in obscure and post-operative fevers. The fact that cultures are often negative, and that they might be negative even in some cases, and at the same stages of undoubted septicemia should be no deterrent; for the same fallibility attaches to other specific and valuable laboratory tests. The ease with which blood cultures are obtained, varies considerably with the organism; the technic varies in different laboratories and for different infections. For this reason, an indication of the probability must be given the pathologist and preferably he should be asked in for consultation. In cases of proved bacteremia, a repetition of the blood culture and colony counts at appropriate intervals may be found to give useful information regarding the progress of the disease and assist in the study of the effects of the various chemotherapeutic agents.

PROGNOSIS: One must acquire judgment in regard to the importance of positive blood cultures. A profuse and rapid growth of an organism may suggest a graver infection than a scant and tardy growth, but there is no reliable numerical assessment of the prognosis along

these lines, for a patient with a profuse growth may recover and the one without a positive blood culture, even in cases of undoubted and fatal septicemia, will die. Clinical symptoms and findings will often give valuable information as to the state of the patient's resistance as compared to the invading host. Absence of rigors or one initial rigor only, slow pulse rate (70-80), abortive foci, and lack of appearance of toxicity in the patient, all place the patient in the benign, mild group, even though the illness may be prolonged for some time further. However, repeated rigors, rapid pulse rate, a toxic, delirious patient, multiple secondary foci, all place the patient in the septic group with a mortality rate of 50% and upward.

It is particularly important that a very early diagnosis of the infection be made, so that adequate specific and supportive treatment may be instituted and if a surgical focus be present such can be cared for surgically; (1) Surgical treatment depends upon the type of organism present in the host. (2) Whether drainage or excision can be done without opening up new channels of infection and breaking down natural barriers being thrown about the infectious process. If all septic processes would remain localized surgery would answer our problem but with the metastasis of bacteria through the blood stream numerous secondary foci are formed. Treatment to be successful should be instituted before embolic processes occur.

In previous years and even now much reliance was placed on the use of frequent blood transfusions, bacteriophage, serums, and dyes but at present we are entering a chemotherapeutic era, which presages spectacular and lasting results, what with sulfanilamide and sulphapyridine.

Common organisms infecting the blood stream are streptococcus in its twenty-four different types, staphylococcus aureus and albus, pneumococcus, gram negative bacilli (colon), and streptococcus viridans.

The various therapeutic aids at our disposal are: (1) Transfusions, (2) Bacteriophage, (3) Serum, (4) Chemotherapy.

TRANSFUSIONS: Transfusions have been used for many years with enthusiasm by some and with reluctance by others. Fortunately, of late, it is being used early in most infections whereas previously it was used only in terminal

affairs and naturally fell into dispute. We realize its full value at present and are using it intelligently as a therapeutic measure. Transfusions to be of value must be given early and frequent small transfusions every day are more valuable than infrequent large transfusions before the patient is overcome by toxemia, before humeral and cellular responses to infection are overwhelmed, and before invading bacteria have multiplied and metastasized to any degree. Donors should be young adults, using a different donor for each transfusion, and cross matching that patient and the donor with each transfusion given. Donors should be fasting ones and should be free of syphilis, malaria, or asthma. Stetson feels that many patients may be saved if transfusion is begun early and given every 48 hours until the blood culture is sterile and until clinical improvement is sufficiently marked to warrant discontinuing transfusions.

There is still argument as to the contrasting efficiency of whole or citrated blood transfusions—certainly whole blood supplies fresh leukocytes for elevation of bactericidal substances, particularly if the patient's leukocytes are exhausted and incapable of immunological response and replenishes the patient's complement.

Blood transfusion value may be enhanced by using:

(1) Non-specific immunized blood, produced by injecting compatible donor with intravenous typhoid vaccine (50,000,000-75,000,000) producing shock and chill in one hour and seven hours after the chill subsides transfuse infected patient.

(2) Specifically immunized blood. Suitable donor is injected with vaccine obtained from organism infecting the patient's blood stream. Begin with 50,000,000 bacteria injecting donor once weekly and increase every week for 4 to 5 weeks until the last dose is 250,000,000 bacteria. One week after the last injection transfuse into ill patient. The method has obvious disadvantage in that it requires time and time in treating such infections is important.

(3) Immunized blood from donor who possesses immunity through recovery from a specific blood stream infection. The question of the retention of the blood

of its immunological properties after infection arises. Is the complement and amboceptor still high? Are there methods of determining this?

Champ Lyons suggests a method of estimating the antibacterial contents of the patient's serum, namely the phagocytic antibody method, in which 0.25 cc of the patient's defibrinated blood is mixed with the streptococci in the completely encapsulated form of growth and rotated in a sealed tube for one half hour. A blood film is made from this and examined to determine the number of streptococci that have been phagocytized by the leukocytes. The patient that is doing well during the course of his infection will develop antibodies on the third or fifth day of his disease. Immune serums are obtained from human donors to supply the desired antibodies, particularly in infections with a virulent organism and with patients with no antibacterial antibody formation. Immune serums are selected by the above phagocytic method. Immunity of the type is type specific and donors may be found to possess antibodies for one strain of streptococcus and not for other strains. It is not necessary for the prospective donors to have a clinical history of streptococcus infection for there is no assurance that the survivor of a streptococcus infection will have an antibody to his particular organism. It is always necessary to determine the antibody present in such human serum and to perform the test with the streptococcus isolated from the patient.

BACTERIOPHAGE: Ward J. McNeal of the New York Post Graduate School, New York, has done more work in this field than any other man in this country. He feels that patients with blood stream infections might have escaped such if their infection had received adequate attention while still a localized disorder. There is a relative neglect of specific bacteriological diagnosis in all surgical conditions. So the bacteriological study of all common inflammatory exudates and wound infections early, while they are localized, is important so that specific measures may be instituted before the blood stream infection ensues.

Particularly is this true when one attempts to use such lytic agents as the bacteriophage. These peculiar bacteriolytic agents act differently against only par-

ticular bacterial species and sometimes against particular varieties within the species.

The inter-action between bacterial growth and specific bacteriophage is evidently subject to wide variations and is influenced by many environmental factors, such as acidity or alkalinity of the medium, temperature, presence of blood, blood serum or inflammatory exudates, or an antiseptic chemical, may be enough to impede the lytic action of the bacteriophage and permit an over growth of bacteria, even in the test tube.

By logical consideration of experiments in the test tube it may be concluded that no bacteriophagic effect can be expected in the living body. So clinical treatment must provide the final answer as to the value of the bacteriophagic therapy.

Arthur and his colleagues feel that anti-staphylococcus bacteriophage, made in broth media for local application or in asparagin media for tissue or intravenous administration is established as a therapeutic agent in local and bacteremia infections due to staphylococcus infections.

Treatment with bacteriophage: (1) Use locally if primary lesion is superficial. (2) Blood stream infections. Until specific phage can be obtained by subjecting culture of the organism to lysis by mixture with stock phages, which filtrate of this lysed culture contains potent bacteriophage adapted to the specific organism (2 to 3 days), the immediate use of stock bacteriophage must be instituted, beginning with 0.5cc of the undiluted asparagin phage intravenously or 5.0cc of a 1-10 dilution of this followed in forty minutes by 1.0 cc. of undiluted and doubling the dose every forty minutes until 10cc dose is reached, then give 10cc doses until a total of 100cc is given and increase 15, 20, 25, 30 cc at each injection or until shock occurs as evidenced by chill, temperature rise, or without warning, cold, pallor, cyanosis of face and extremities, rigor. Such should be treated by heat, oxygen administration, adrenalin if needed. Twenty to thirty minutes after the chill the temperature may reach 104 to 106, then sweating and a rapid temperature drop to 99 or below normal may follow in one hour or so and rise again after 12 to 20 hours. Such a reaction is regarded as a favorable reaction and may occur early as it does frequent-

ly, even after a total dose of 3.5, 7.5, or 15.5cc have been given. Failure to obtain such a shock reaction may mean that the patient had a sterile blood culture at the time before the injections were started or that the prognosis is unfavorable. Shock reactions occur when the amount of phage injected has a quantitative relation to the bacteria in the blood stream. Hence, if the blood stream is sterile one may fail to obtain shock, even with large doses and also with the blood stream heavily infected with organisms, large amounts may be given before shock reaction occurs. This shock reaction is an inter-action, probably opsonic between the bacteriophage, the accessible bacteria and the natural defense mechanism of the host. After shock reaction the patient may be transfused and abscesses drained and if the blood culture is still positive, another shock reaction may be attempted on the fourth day and again on the seventh day. Then if the blood culture is negative small intravenous doses of phage are given twice daily for 1 to 2 weeks, then once daily for a month and with the patient out of bed subcutaneous injections 2 to 3 times a week for 3 to 6 months.

In giving the intravenous injections of phage it is best to use the veins of the hands and feet rather than the veins of the elbow which are best used for administration of glucose and blood. After injections firm pressure should be maintained over the site of puncture for five minutes to prevent vein drainage.

COMMENT: (1) Such a method is of particular value in staphylococcus blood stream infections with resulting pyemic phenomenon as osteomyelitis, etc., for prior use of phage in staphylococcus septicemia proven by reliable cultures recovery was extremely rare.

(2) No success is noted in treating Hemolytic streptococcus infections with bacteriophage.

(3) Effective therapeutic application of bacteriophage requires intimate and sympathetic cooperation between the clinical and laboratory workers. Commercial preparations leave much to be desired.

(4) Staphylococcus septicemia is definitely influenced by intravenous phage and wisely employed is helpful, sometimes even life saving in the treatment of these patients.

SERUM THERAPY: Such therapy plays

a major role today, but unfortunately only in those infections which have a strain specific etiology such as pneumonia, diphtheria, tetanus, etc. Such is not the case in pyogenic infections for here there are apparently thousands of strains of these various organisms and serum prepared against one has insignificant results against a bacteria of a different strain. Thus, serum therapy to be of value must utilize a serum prepared against bacteria isolated from the specific infection. Dr. Fred Cadham of Manitoba, Canada reports a low mortality in such infections, 15% in 100 cases with an average mortality under orthodox treatment of 80%. His diagnosis was made on; (1) symptoms, (2) positive blood cultures.

No other treatment other than whisky and liberal diet was used.

Numerous strains of streptococcus and staphylococcus were recovered from patients with septicemia or from patients with pyogenic foci resulting from infection with these bacteria and cultured in serum broth and a vaccine made. Rabbits were selected and inoculated with a suspension of these vaccines. The rabbits are 6 months of age and are inoculated twice weekly and throughout its useful life, using numerous strains of staphylococcus and streptococcus. The vaccine is given intravenously and subcutaneously. With the occurrence of a positive culture with septicemia a vaccine of this specific organism is prepared by quick, heavy culture in 24 hours and this vaccine is inoculated into a series of previously immunized rabbits and the next day 6 to 10cc of blood is withdrawn by a vacuum tube from the heart of one rabbit. Serum is extracted, tested for sterility (inoculated in broth infusion and placed in the incubator at 37 degrees Centigrade for 7 days or inoculated into a guinea pig and observed for 24 hours) and the patient is inoculated subcutaneously or intramuscularly with the serum. Meanwhile inoculations with the vaccine of the causative organisms are continued daily with the series of already immunized rabbits and if necessary the serum of these rabbits, in rotation, is given the patient on successive days. Frequently, Dr. Cadham reports, there is definite change in temperature and pulse of the patient, the general condition improves, foci gives evidence of localizing, blood culture rapidly becomes sterile in cases which recover and remains positive in

those with fatal termination.

There is no reaction associated with the use of animal serum. In septicemia, as a rule, there is a rapid fall in the complement power of the patient's blood. Transfusions of normal human serum reactivate this property, serum is used in preference to whole blood because the cellular elements lower the patient's complement. It is known that in any immunological process are two types of antibodies (1) Amboceptor—which is found in any commercial serum. In order that the amboceptor may act there must be present in the blood another non specific substance known as (2) the complement—which is normally present in human or other fresh blood. Dr. Cadham finds an immediate but temporary rise after the first transfusion, followed in a day or so by a drop. Succeeding transfusions cause a lesser rise and eventually show no results and the complement titer is lower than at the outset of treatment.

However, when serum is substituted for whole blood the complement titer remains higher without subsequent drop and each serum transfusion seems to completely reactivate the patient's serum. His data is insufficient to corroborate undeniably this element but his results seem to speak for themselves. The patient is matched and 60 to 100cc of blood is obtained from a suitable donor, the blood is allowed to clot at room temperature and is then put in the ice box for 12 to 18 hours. The serum is removed and the patient is transfused with it. If necessary the procedure may be carried out daily. The average number given is four and the greatest number to any one patient is 10.

These rabbits which have previously been immunized against various strains of streptococcus and staphylococcus, etc., show a high degree of resistance to experimental infection. As a rule, the rabbit serum contains specific antibodies for the majority strains of streptococcus and staphylococcus recovered from patients with septicemia. These are demonstrated by agglutination, precipitation, and bacteriolytic reactions. Occasionally, however, a streptococcus is isolated for which these immune bodies of the animal serum are present only in a slight degree. Then it is necessary to stimulate the formation of antibodies in the rabbit by repeated inoculations of the specific organism.

Cadham feels as other workers that an

important factor in the therapy of septicemia is prompt recognition and prompt treatment, both of which may prove the dividing factor for a fortunate outcome.

Many patients, of course, may and do on occasion recover from the infection on their own resources.

The outcome frequently depends on the nature of the organism, the resistance of the host, and the degree of infection. Since previous records show a mortality of 85% this method must be of definite value.

CONCENTRATED STREPTOCOCCUS SERUM OF N. Y. STATE DEPARTMENT OF HEALTH: The use of their product by Sheplar, Spence and McNeal from reports and records of patients offers strong evidence in favor of its use in treatment of streptococcus infections of the respiratory tract, ear and mastoid, as well as blood stream infections developing as sequelæ of these. They hope that we physicians will use serum early and in adequate dosage to forestall these more dangerous sequelæ. The serum administered in small doses as a rule at the onset, first intracutaneously to test for hypersensitiveness to horse serum, followed in one half hour by a small subcutaneous dose, after which a full dose is given to the patient showing no hypersensitiveness.

Those patients who have an urticarial wheal produced by the intradermal dose had treatment given more cautiously. Intravenous method of administration preferred for prompt effect and subcutaneous for hypersensitive patients.

It is best given early and in adequate dosage and continued in smaller amounts over a period of several weeks in streptococcus infections of the blood stream in children to afford protection to skeleton as well as other important structures.

CHEMOTHERAPY: (1) Sulfanilamide, (2) Sulfapyridine.

Since it has previously been mentioned in this paper that the hemolytic streptococcus is one of the prime causes of disease and is responsible for more acute infections than any other germ, with the advent of chemotherapy such as sulfanilamide, we may feel that such has closed the chapter in treatment. But it is important not to lose sight of the valuable advances in biology and immunology of the streptococcus. Streptococcus was classified by Brown in 1919 as Alpha or viridans, Beta or hemolytic, and Gamma or

non hemolytic. Lancefield's classification is based upon a simple precipitin reaction. The antigen, a carbohydrate, often called substance C which is extracted from the bacteria themselves with hot HCL; the antibody, the serum of rabbits immunized with formalized bacteria. Such classification gives seven sharp groups of hemolytic streptococcus.

Griffith's agglutination method reveals 28 fixed types which is analogous in many ways with the fixed pneumococcus types.

SULFANILAMIDE: A colorless solid, somewhat soluble in water (8%). Taken best by mouth in solid form.

In the presence of a limited number of bacteria and a suitable environment the drug is slightly bacteriocidal and definitely bacteriostatic.

Levadite claims that at the beginning its major effect is not only on bacteria but on the specific hemolysin and leukocidin. Recent work of Osgood and Brownlee finds the drug effective in much higher dilution in human serum, only 1:100,000 or 1 mg. per 100cc blood.

The drug probably does its work by direct killing of the bacteria and neutralization of the aggressive poisons of the bacteria. Mellon and his co-workers have shown that even when it appears to cure infection the drug does not kill all bacteria in the tissues. Similar clinical observations have been made in man. For this reason the appropriate procedure is to continue treatment for at least four or five days after the cessation of the infection.

CHEMOTHERAPEUTIC ACTION OF SULFANILAMIDE: It has been observed in experimental work that the effect of sulfanilamide on bacteria in a test tube is minimal as contrasted to other drugs. When added to ordinary broth media, animal or human serum or when the serum of sulfanilamide treated animals or man is employed the growth of organisms is at least checked. The bacterial status of streptococcus in sulfanilamide rabbit serum has definite morphological changes with scattered metachromatic swollen cocci, which may give the reaction of dead cells and longer chains. This definite action on bacteria in the body has contrasted effect to that of bacteria in the test tube and formerly been partly attributed to the conversion into a more germicidal compound but growing evidence is now present, that is, the drug acts against the

bacteria in the infected host. Owing to its cooperation with the natural defensive mechanisms of the body the micro-organisms never become drug fast. The drug does render them temporarily impotent and reduces in a slight degree their pathogenic properties. This inhibition allows mobile cells, particularly the mononuclear cells of the connective tissues the opportunity to approach and phagocytize the bacteria.

Sulfanilamide is extremely useful in hemolytic streptococcus infections and only certain strains become avirulent to its use. Clinical experiments show that it alone may be inadequate in a high percentage of bacteremias.

Sulfanilamide and antibacterial antibodies combined are more effective than either used alone.

DOSAGE: Average dose 1 gram for each 20 pounds body weight in 24 hours. The upper limit is 5 to 6 grams for each 20 pounds body weight in 24 hours.

In seriously ill patients 10 to 15 grams per day may be given with success.

The largest dose is given the first 24 hours and dosage reduced in half after the infection has apparently subsided.

PRONTOSIL: 1cc of a 2½% solution for each pound body weight except in patients over 150 pounds. Dosage may be given every 4 to 6 hours.

One gram sulfanilamide equals 20 cc. Prontosil. The results with its use in septicemia are dramatic but if a surgical focus is present, incision and drainage must be done.

SULFAPYRIDINE: Whetby first reported in *The Lancet* in May 1938 that it was an efficient chemotherapeutic agent in the treatment of experimental hemolytic streptococci, meningococci, and pneumococci infections in mice.

The therapeutic activity seemed especially marked in experimental infections by Types 1, 2, 3, 5, 7 and 8 pneumococci. It was first called 2 (aminobenzenesulphonamido) pyridine. In British journals it was known as M and B 693 because of its manufacturers, May and Baker, Ltd. in England. In America sulfapyridine, the name adopted by the council for pharmacy and chemistry of the American Medical Association.

The drug is a powder, slightly bitter and made up in 3, 8, 5 gram tablets and capsules. It is given by mouth in tablet form and a powdered form is suspended

in oil to be used intramuscularly. It is soluble in a 1:1000 solution.

DOSAGE: Children 1 to 3 months 0.8 grams daily. 6 to 24 months 1.5 grams daily. 3 years 2.0 grams daily. 5 years 3.0 grams daily. Adults 8 grams as initial dose, then 1 gram every 4 hours and continue 24 hours after a normal temperature.

It was used originally in treating pneumococci infections but now it has already been tried in infections from many other organisms (1) Staphylococci bacteremia (2) Chronic meningococcemia (3) Meningococcic meningitis (4) Gonorrhea.

The drug has toxic effects (1) Cyanosis, (2) Nausea and vomiting, (3) Skin rashes, headache, dizziness, and fainting. Most men feel that the toxic effects are fewer and less marked than in the use of sulfanilamide. The toxic effects are less marked in children than in adults. The cyanosis is due to the accumulation of methemoglobin, and may be prevented or controlled by the use of methylene blue. It is important in pneumonia since it is desirable to know whether cyanosis is from the drug therapy or pulmonary or cardiac origin.

Doctor Perrin Long feels that careful therapeutic trials of the effects of the drug in pneumococci, severe staphylococci and Friedlander's bacillary infections seem to be warranted. He feels that there are indications that the drug is as effective as sulfanilamide in the treatment of hemolytic streptococci, gonococci and Welch's bacilli infections. The drug is irregularly absorbed and slowly excreted. More conservative opinions in recent writings, indicate a conservative attitude in its use. Apparently, much clinical investigation and laboratory study is needed before a definite line of therapeutic procedure can be offered for general use. As compared to sulfanilamide (1) It has a more polyvalent action, (2) Is more effective in low dosage, (3) Low toxicity, (4) Does not produce porphyrinuria.

As far as the use of sulfapyridine in blood stream invasions, other than pneumococcic bacteremia and staphylococcic bacteremia, there has been little written since the advent of this drug clinically except in the conditions first mentioned.

S. B. Demson in 1938 reports spectacular results, with two cases of meningococcic septicemias, with sulfapyridine which is probably attributed to the antibacter-

ial antibody formation which was increased after the inhibition of the organism by the drug. One case of eight weeks duration had immediate subsidence of the symptoms. Fenten and Hodgkins in 1938 treated a staphylococci septicemia with sulfapyridine 5 grams the first day, 2, 3, 4 grams the fourth day, 2 grams the fifth day, 1.5 grams every day for 9 days with the drug. The patient recovered one and a half months later but the temperature dropped to normal the day after the drug was first used. The blood culture was negative on the thirteenth day.

CONCLUSION: (1) The prognosis for blood stream infections has improved.

(2) The finding of positive blood cultures varies. A competent pathologist should be asked in for consultation.

(3) The importance of early diagnosis and treatment, both specific and supportive has been emphasized.

(4) Various methods of treatment have been enumerated. (a) Transfusions (1) Whole blood given early and frequent where the need of fresh leukocytes is felt. (2) No specific transfusions are of value. (3) Specifically immunized blood—also of value but time consuming. (4) Convalescent donor—value in question unless phagocytic antibody method—his blood shows a high anti-bacterial content.

(b) Bacteriophage of value in staphylococcus blood stream invasions but requires intimate and sympathetic cooperation between the clinician and laboratory workers.

(c) Dr. Cadham's method of treatment by serum seems reasonable but it is not accessible to men in general work and in rural communities. His use of serum, to increase lowered blood complement, seems feasible and easily done.

(5) Champ Lyons method for testing the antibacterial content of the patient's serum is enumerated.

(6) Chemotherapy is a most valuable aid in the treatment but the valuable advances in biology and immunology in combating infections must not be overlooked.

DISCUSSION

Morris Flexner, Louisville: It is indeed refreshing to hear an optimistic report on this particular subject. Certainly this could not have been made three years ago. The reason for this is that it is due entirely to the improvement in our therapeutic armamentarium. For

years the term "blood poisoning" has struck terror in the heart of the patient, the family, and the doctor. Physicians particularly who appreciated the situation were terrified because they knew they were fighting battles with very poor weapons. Only in recent months and years, in the last three years certainly, have we had anything like adequate equipment.

I myself am a graduate of an era of salvarsan, metaphen, mercurochrome, dyes, transfusions. Out of the lot I think transfusions alone have survived. I think all of you in the old mercurochrome days saw an occasional case with brilliant results, but in the next case, or the next two or three, when you thought you ought to get good results, nothing happened.

One point about blood transfusion which I would like to make is that I do not think it makes a great deal of difference what type you use, provided you give enough blood. I think the question of large and small transfusions should be decided particularly by the state of the person's anemia. In patients who are very anemic I think large transfusions are probably preferable, even preferable to repeated small transfusions. If you can get an immunized donor, that is a convalescent from the same disease from which your patient is suffering, or a recent convalescent, I think it is valuable. This business of running around and advertising in the papers for people who have had the same infection fifteen or twenty years ago, and using that blood for transfusion, is most of the time useless, because you have no assurance that that blood contains any immunological properties.

The diagnosis, of course, must be made solely by blood cultures, and in suspected cases it is much better to waste a number of blood cultures than to miss a case of septicemia. Once having made the diagnosis, your therapy certainly will be influenced by that fact, and hence I think repeated blood cultures must be made.

The essayist has covered very thoroughly the sulfanilamide group, and the only point that I wish to add is that I do think in severe septiciemias, frequent blood sulfanilamide readings must be made. They can be done in several places throughout the state. If your own particular hospital cannot make blood sulfanilamide readings, you can easily take a sample of blood and ship it some place in the state where those readings can be made. I think it is absolutely imperative to do blood sulfanilamide readings in severe infections where you are using large doses.

After all, the organisms which require our immediate attention, I think now, are staphylococci and alpha and gamma streptococci. Un-

doubtedly you can handle most hemolytic streptococci infections, the septicemias, that is, with sulfanilamide plus transfusion. It is only recently that I feel we are getting somewhere on these other infections. In the last number of the *Annals of Internal Medicine*, Julianelle from St. Louis published his work with rabbit serum for staphylococcus A, which is the pathogenic group of staphylococci. His results are very promising. I wrote him about it and he tells me that now Lederle has taken over that product and will furnish that serum to anybody who wants to use it; it is not for sale, but for purely experimental use, provided you furnish him with adequate case reports.

I think that in itself is the test for these various types of sera. You find any number of men throughout the country who have made rabbit sera; only occasionally have they become commercialized which they must be before we as a group can get any real benefit or experience from them.

Charles M. Edelen, Louisville: I have just a few remarks I should like to make, particularly along the surgical line. There is a definite surgical responsibility in septicemias, particularly septicemias due to pyogenic or pus forming organisms. One remark of Doctor Flexner's about blood cultures I want to emphasize. I think it is rather difficult to depend entirely on blood cultures, because we can have septicemia, as we all know, and symptoms of septicemia without having a positive blood culture.

There are about six things I would like to enumerate, most of them are prophylactic, in the treatment of septicemias. For instance, in boils and carbuncles, so many septicemias result from improper or too radical treatment. We have all been told in our medical schools about the so-called pricking or squeezing of boils, and the inadequate incision of a carbuncle. I believe the statistics will show that the mortality and morbidity is much more favorable with conservative treatment of these two conditions.

Another thing is the penetrating wound. How many times have we seen patients in our offices with a penetrating wound and we wonder just how to treat it. Should that wound be opened, should it be excised, or just what should be done? I believe in the majority of instances it is best to cleanse it thoroughly, unless you are certain a very massive dose of virulent organisms has been introduced; otherwise wait a few hours and if the symptoms of inflammation set in, then open the wound to its depth and cleanse it thoroughly.

At the Children's Hospital we have had twelve cases of tetanus in which we have completely excised the punctured area. We have had four deaths. We feel that is gratifying.

Lacerated wounds, wounds sustained at the cross-roads and in highway accidents and wounds of industry are very inadequately treated by the majority of us. In my own practice I rely entirely upon thorough debridement, cleaning with soap and water followed by copious irrigations with normal saline solutions; by copious I mean one or two gallons, naturally depending upon the extent of the injury.

Another point I would like to bring out is the importance of an adequate incision of an abscess. This is much safer than a small incision through which a finger is inserted to break up so-called pockets. I think at that time lots of us have liberated infected emboli in vessels in the abscess wall which have gone on to start secondary foci.

Again, we should not forget proximal venous ligation in suppurative phlebitis. Personally I have had no experience but the literature is full of successful cases so treated. A man by the name of Neuhauf at Mount Sinai reports a series running up to several hundred, in which he has even excised suppurative phlebitic veins. He thinks that in the so-called surgical septicemias where there has been a secondary focus, in over 40 per cent of cases, the organisms are being put out into the blood by a suppurative phlebitis.

RELATIONS OF OCULAR CONDITIONS TO GENERAL PRACTICE

DAVID L. SALMON, M.D.

Madisonville

The specialization of medicine has had a tendency to so divide and dissect the human body into its integral parts that the average layman and many physicians have the idea that the proper interpretation of any unusual symptom requires the consultation of a specialist: for the heart murmur, the cardiologist; for the bone deformity, the orthopedic man; and for every red eye, the ophthalmologist. Certainly any one having attained the degree of Doctor of Medicine should view the human body as a unit, with involvements of its various members closely related.

Upon those of our number doing some general practice rests the burden of recognizing some of the more common eye conditions, treating them, and when necessary asking help from the oculist. Likewise, the oculist many times requires the help and knowledge of one or more

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thoroughly versed in general medicine to assist him in determining and evaluating conditions met with in diseases of the eye.

The purpose of this paper is to urge a closer cooperation between the oculist and general practitioner, and to discuss briefly a few of the more common eye conditions frequently met with by the latter.

The management of foreign bodies of the cornea and conjunctiva is quite a problem. Those of the cornea as a rule produce more permanent disability. Every general practitioner's office should have a Bebee loupe, lens, eye spud, and a good light to enable him, at least, to locate the foreign body. The instillation of a mild anesthetic, (butyn or holocaine), followed with a drop of some aniline dye (mercurochrome or fluorescein) will often locate a foreign body, corneal abrasion, or pin point ulcer which would otherwise pass, for the time, undiagnosed. Strange to say, occasionally we find a doctor unable to understand or diagnose, what the patient explains as a "scratching sensation" in the eye, giving this patient a solution of cocaine (2-10%) to be used repeatedly for the relief of pain. Such a procedure has been the contributing factor to many permanently impaired eyes. It is comparable to giving a patient with pain in the right lower quadrant of the abdomen a hypodermic of morphine every four hours to await developments. Cocaine produces a dessication of the cornea, allows the patient to further damage the eye by rubbing, and may permit him to carry a foreign body in the cornea until ulceration begins. If the foreign body is near the center of the cornea and deeply embedded, unless you have had considerable experience, it would be wisdom to seek consultation. Don't remove the foreign body leaving a brown ring of stain or rust and feel that all has been done. The brown ring must be removed. Exercise care to disturb as little as possible the cornea surrounding the foreign body. We use a tube of Butyn and Metaphen ophthalmic ointment every two to four hours for relief of pain following cornea injuries. Bandaging the eye following foreign bodies or corneal abrasions depends on the individual case. We routinely bandage all corneal injuries where there is any complicating pyorrhea alveolaris. The injured eye becomes secondarily infected in a much higher percent-

age of cases when pyorrhea is present. If your corneal abrasion becomes infected, and a corneal ulcer presents itself we feel that an oculist only should assume the responsibility.

The general practitioner is often asked, "does my child have trachoma or granulated lids?" A few salient points will help you dispose of such a problem. Primarily trachoma is not a disease of childhood, but of adult life. The folliculosis met with in childhood has been termed by a well known authority "adenoids of the eye." Along with enlarged lymphoid tissues of the upper respiratory tract in a growing child will be found enlarged lymph follicles of the conjunctiva. These are usually on the lower lid. True trachoma is found on the lower lid only in advanced cases. The upper lid with its tarsal plate, is the point of earliest involvement. Many times have we seen patients who proudly state that years ago their favorite doctor operated on their eyelids for trachoma. But, when we examine the lids we find them quite normal. This was not trachoma, for once trachoma, always trachoma. An acute trachoma is essentially a hospital case. If finances or hospital facilities prevent hospitalization locally, the Government Hospitals for the care of such patients should be used.

For convenience and brevity I will discuss inflamed eyes under two groups; those that are accompanied by a discharge either slight as in Morax-Axenfeld infections, or profuse as in gonorrheal ophthalmia, and those without a discharge whose principal complaint is usually pain, photophobia, congestion, or loss of vision.

The latter group is certainly the more serious and I doubt if any doctor, other than an oculist should assume the responsibility in such cases. The early differentiation of iritis and glaucoma is many times difficult, and can be made only by careful study and observation. Atropine is a very valuable drug to the oculist, but I am convinced it should never be used in the eye by one not familiar with its good and bad effects. A case of iritis was seen by us in consultation. The physician and patient failed to cooperate with our advice of hospitalization, and a course of treatment at home was outlined. At first atropine dilated the pupil and the patient was much relieved. Three days later the doctor called our office to ask

if he should increase the strength or frequency of atropine instillations, since the patient, in the last twenty four hours, was suffering severely. When we saw the case that day we found that we were dealing with a complicated absolute glaucoma. An immediate operation was done, but the results were very poor. The routine use of atropine should always be accompanied by the daily taking of tension of the eye, both digitally and with a tonometer. The amount of atropine, eserine, or pilocarpine is regulated from day to day, almost hourly. It is, therefore, not fair to any of the parties involved to try to map out several days treatment of iritis or glaucoma.

Time does not permit the discussion of other non-suppurating external eye conditions involving the cornea or sclera. Suffice to say, these conditions present problems requiring the combined efforts of the general practitioner and oculist to determine their etiology and prognosis.

If you choose to treat the discharging eye there are a few drugs at your disposal which can be used safely for a reasonable period of time. The silver preparations are many. Usually argyrol is the most popular, varying in strength from 2 per cent for infants to 25 per cent or more for adults. The various forms of mercury and aniline dyes are beneficial and useful. One point to be stressed is the value of frequent mechanical cleansing with water, using boric acid, soda or whatever you choose in the solution. During the course of treatment each day the cornea should have a drop of some stain instilled and the surface of the cornea should be examined for possible beginning corneal abrasion or ulcer. We have felt it inadvisable to bandage a discharging eye, since other methods of protection are much safer.

One condition often met with and not recognized is a Morax-Axenfeld infection, usually making itself manifest by involving the inner and outer canthus of the eyes. Zinc is specific for such infections. Usually a one-half of one per cent solution of zinc sulphate in boric acid will give results when silver and mercurial preparations have failed.

The epidemic, Koch-Weeks infection (pink eye), usually seen among school children presents problems of prophylaxis and treatment. Some mild antiseptic combined with frequent mechanical

cleansing by irrigation, together with careful explanation to the patient of the contagious nature of the disease controls the major number of cases. These children should be kept out of school, swimming pools, and other public places as long as there is evidence of discharge from the eye.

The interpretation of eye symptoms should always remain in the medical profession. We, as ophthalmologists, when desiring information of a general nature, which might have a bearing on some eye disease, would not seek the help and advice of the chiropractor, palmist, or osteopath. Likewise, the general physician when in need of consultation should avail himself of as competent an ophthalmologist as possible. We as physicians have entrusted to us the health and happiness, since without health there can be very little happiness, of the nation. Let us therefore remember that our first consideration in every decision shall be the welfare of the patient.

DISCUSSION

Austin Bell, Hopkinsville: It is truly refreshing to have, in this day of high specialization, the idea expressed that the general practitioner should continue to exist. One wonders at times whether or not certain specialists have reached the conclusion that each symptom calls for consultation with one possessing aptitude therein. My own judgment is that the general practitioner should be able to cope with 80 to 85 per cent of the cases that come to his office. It is imperative that he recognizes his limitations and realizes the patient should have chief consideration and when in doubt should unhesitatingly seek the advice and counsel of his confrere.

Surely the eye, ear, nose and throat man must be sought frequently and his judgment accepted. On one occasion our cook was overheard urging the man who worked for me that he "ought to get a 'ligion because it was so satisfying." Frequently that same thought comes from unloading an eye or ear case on more capable shoulders. Before doing this, a general survey should be made of the case, a careful history taken, and each organ have due consideration, so that when the specialist is consulted he may have an intelligent idea of the patient's general condition and pathology existing in other organs than the one for which his help is sought. The venereal status of the patient with blood tests to exclude syphilis is most important.

In dealing with foreign bodies, a local anesthetic, a good light and a careful search should

locate and result in removal. If deeply imbedded in the conjunctiva or cornea or difficulty is encountered in removing it, far better refer the patient to another. At times one may be justified in giving a mild anesthetic or antiseptic for the relief of pain and prevention of infection, but surely the essayist is right in condemning more than a temporary use of same. The body is often removed but the photophobia continues until nature has restored the denuded surface. During this period, rest and protection of the eye can do no harm.

The continued treatment of suspected trachoma by the general practitioner cannot be too strongly condemned, and always calls for the specialist, in my judgment. Any suspicion of glaucoma makes consultation imperative. In the newborn, the physician or midwife is required to use silver as a preventive, which legal requirement has blessed many homes. In spite of such treatment, every infant should be examined and the nurse questioned on subsequent visits as to the eye condition. A slight drug irritation is frequent for 24 hours, but a continuance longer, especially with swollen and edematous lids and a purulent discharge, calls for most vigorous treatment. We must remember that care at birth does not exclude subsequent infection by a careless nurse.

Pink eye is a very contagious trouble, and such involvement must have due consideration. Investigation may elicit some general disease with pronounced eye symptoms; especially is this true with measles and influenza. Questioning the patient or family often determines exposure. The ophthalmoscope in competent hands may be the determining factor in a successful diagnosis and surely skill in interpretation of the eye-grounds is constantly needed to avoid the many pitfalls of the busy physician.

It may be hard to get along with the specialist at times, but surely we could not get along without him.

C. K. Beck, Louisville: I would like to call attention to the local argyrosis from the use of argyrol or from any of the other silver preparations if kept up too long. They stain the sclera and sometimes it does not fade out at all. Sometimes, if stopped in time, the argyrosis will clear up in a period of months or years.

The last thing he said is something that I too feel should be emphasized. I think the medical profession is not a selfish profession; we do not make any recommendations from a selfish standpoint, and I am sure that the recommendation that he made and my emphasis of it is not from a selfish standpoint, but certainly we ought to be supported by our brothers in the profession in taking care of eye troubles. There are

some doctors who refer their patients for refraction to optometrists and opticians. I don't believe that they are being fair to their brothers in the profession, I don't believe that they are being fair to themselves, but more than that, I don't think that they are being fair to their patient. Surely a medical man is in better position to make a diagnosis and prescribe treatment for an eye condition than one who just knows something about refractions. We cannot criticize very severely the optometrists and the opticians in refractions that they make; they oftentimes do mighty good work; I have seen good work done by them, but they know nothing of the diseases of the eye, and that is, I feel, the most important part of a refraction. We should know that the eye is in a good healthy condition, and they are not in position to make that kind of diagnosis. They have not been trained for it and it cannot be expected of them.

I just want to emphasize that, though I know from my standpoint and from the essayist's standpoint that it might seem a selfish thing, but it is said for what we feel to be the good of the doctor who has the patient in charge and for the good of the patient himself.

CANCER OF THE BREAST; A DESCRIPTION OF THE RODMAN OPERATION

DONALD GUTHRIE, M.D.

Sayre, Pennsylvania

In spite of the vigorous efforts which have been made to educate the profession and the laity, cancer ranks second as the commonest cause of death in this Country. The disease presents a major problem and a distinct challenge to our diagnostic and therapeutic skill.

The death rate of cancer has increased steadily since 1900 when it was reported to be 63 per 100,000 of the population to the last published report in 1936 of 105 per 100,000. In Pennsylvania, the 1936 report of the Bureau of Vital Statistics gave the rate to be 115 per 100,000. This increased death rate may be more apparent than real, because of the better diagnostic methods now employed and the increased number of autopsies which are performed, often finding unsuspected cancer to be the cause of death in the obscure case, but every student of the subject admits that the disease is increasing in spite of our effort to control it.

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The mortality of cancer of the breast is especially discouraging because here is a disease which always begins as a local affair, one which is curable while in this stage and requires no elaborate diagnostic methods to detect it. Ignorance and delay are largely responsible for its present mortality. The United States Bureau of Census reported that 12,316 persons (17.6%) died of cancer of the breast in 1933; the same Bureau reported that 62,214 persons (10%) died of cancer of the breast in the years 1931-1935.

The most important consideration in the treatment of breast cancer is its early recognition and its proper surgical management. Unfortunately, in very early breast cancer there may be no pathognomonic signs or symptoms and there is no pain. As a result of cancer education of the laity, patients with all types of breast lesions are coming in greater numbers and much earlier for examination and advice, as is shown in analyzing our own cases as follow:

DURATION OF MAMMARY CANCER BEFORE OPERATION

	1910-1922	1923-1935
Average duration -----	65 weeks	55 weeks
Patients who came to operation		
within 1 year -----	43.3%	55.5%
Patients who came to operation		
within 6 months -----	31.4%	40.4%
Patients who came to operation.		
within 1 month -----	7.2%	23.2%

This fact has increased the responsibility of the medical profession tremendously, for it is upon this initial advice given by the examining physician that a cure or a death from metastasis may depend.

Many cases of cancer of the breast are self-evident at the first examination. The tumor is hard, irregular, it may infiltrate the surrounding breast tissue and, as a rule, is not movable in the breast tissue but is attached to the overlying skin which may be dimpled, the nipple may be retracted and axillary metastasis may be present. But there is a large group of patients in whom the lesion may show none of the characteristic signs or symptoms of early cancer and yet malignant disease may be present. It is so very important to treat these patients correctly, for these early lesions are local affairs, confined entirely to the breast and excellent results may be expected by the use of the correct radical operation. The only safe plan is to remove these doubtful lesions by wide local excision, submit

the specimen to the pathologist for immediate examination and complete the operation by radical amputation, if the lesion proves to be malignant.

The writer wishes to condemn the practice of partial removal of these lesions and also the practice of referring these specimens to laboratories which may report upon the specimen several days or a week later. This period of delay, before the report upon the tissue is received, is often fraught with grave danger to the patient. He also wishes to disagree with the belief that an incomplete operation performed early, is better than the most radical operation done at a later date. The results of the radical operation which we have been asked to perform upon patients who have had an incomplete operation done elsewhere have been almost uniformly unsatisfactory. No surgeon should take the responsibility of treating cancer of the breast who has not perfected himself in performing an anatomically correct radical amputation.

To quote Harrington: "The surgical treatment of cancer of the breast is based upon the hypothesis that malignant disease is localized at the onset and that it later involves other tissues by way of the lymphatics, and occasionally by the blood stream. If this conception of the disease is correct, the important considerations in the treatment of breast cancer are its early recognition and its immediate complete removal of the diseased tissue, for the important factors which influence the results of surgical treatment are the extent of the malignant involvement at the time of operation, the thoroughness with which the radical operation is performed and the grade of malignancy determined by microscopical examination."

The need for the operation of radical amputation is evident in all cases of cancer of the breast. The operation should be carried out upon the principles advocated by Halsted and Willy Meyer. The breast must be widely removed with the pectoralis major and minor muscles and the contents of the axilla removed as a gland bearing fascia anatomically dissected.

THE PRESENT STATUS OF RADIATION THERAPY

Postoperative treatment probably rates primary consideration in this discussion not because it is the most intelligent use

of this therapeutic agent but because it was the first method employed. As a consequence of its earlier application there is more information available concerning its effectiveness. A summary of all groups of cancer of the breast, which have been treated postoperatively only, will tend to prove that this procedure has added five per cent to the group of five year survivals.

Preoperative treatment of cancer of the breast with axillary metastases evolved naturally in an attempt to salvage a greater number of these patients and it is in this field that the combination of radiation and surgery has its greatest usefulness. Five year survivals in this group of cases have been definitely increased from five per cent to twenty per cent, depending upon the reporting authority. Reports from radiologists are more optimistic than are the reports from surgeons and while they represent the extremes of opinion, the probable real value must be some mid point between their estimates. Repeatedly in our clinic we have seen patients who had large breast tumors with axillary glandular involvement show marked regression of the primary tumor and disappearance of palpable glands following radiation. These patients have been rendered operable. In a few instances in our experience there has been complete disappearance of all gross evidence of the disease. Trout warns that some patients showing marked improvement following irradiation will not return for operation until the growth has begun to increase again. He attempts to make an accurate estimation of the patient's mentality and willingness to cooperate. If there is any question in his mind that the patient is mentally unable or unwilling to carry out directions, he advises immediate operation without preoperative radiation.

Preoperative radiation of primary operable breast cancer in which the lesion is small and is still confined to the breast is a moot question. Carefully done surgical procedures in selected material have shown salvage of nearly seventy per cent of these individuals and of course it is debatable whether or not radiation will add to this figure. This group represents the ideal group to treat surgically because it is possible to completely encompass all the known disease with one procedure.

Adair has treated a group of two hundred patients at the Memorial Hospital

in New York, giving them adequate preoperative therapy but sufficient time has not elapsed since completing this work to arrive at any conclusions concerning five year survivals. This is the largest and probably the most carefully controlled group of operable tumors to be treated in this manner and I believe it behooves us to wait for the outcome in this group before making any positive statements regarding this therapeutic procedure. I sincerely believe that if radiation has added materially to the seventy per cent of expected survivals by surgery alone, then the treatment of choice will be preoperative radiation in all breast cancers.

The complications following radiation and directly incident to it are not many and are partly avoidable; the most distressing one being pulmonary fibrosis. In some susceptible people, in spite of all care that may be taken, there will be some pulmonary fibrosis with an associated fibrous adhesive pleuritis which, in its early stages, may be somewhat painful. This complication, while it may be somewhat distressing at times, certainly is not of sufficient importance to make one forego the benefits derived from radiation. The difficulty experienced by surgeons (bloody field) can be avoided by the simple expedient of waiting until the reaction from the radiation has subsided. We operate upon our patients between one to two months subsequent to the completion of the radiation.

The palliation derived from treatment of late cancer of the breast with widespread metastases certainly warrants its use in these cases. The relief from pain and the closing up of large sloughing, foul smelling ulcers in late cancer often may be accomplished by radiation. No patient with cancer of the breast is accepted for operation until stereoscopic plates of the chest and roentgenologic examination of the long bones, skull and pelvis are found to be free of pulmonary and osseous metastases.

SUMMARY

The greatest benefit derived from preoperative radiation is in that group of lesions with axillary but without general metastases.

Postoperative radiation has proven its worth in all forms of cancer of the breast.

The preoperative radiation of primary operable cancer of the breast without axillary is still a debatable question.

OUR TECHNIQUE

Radiation to the breast and axilla to cover a period of 20 to 25 treatment days, giving 6000 r to the primary tumor and lesser amounts to the axilla, supra-clavicular space and mediastinum.

Mastectomy one to two months subsequent to completion of radiation.

Pettit reports in the American Journal of Surgery, 1935, upon the natural duration of life in untreated cancer of the breast (compiled from literature by Portmann, in 1929).

	Aver. No. of Mos.
Lazarus-Barlow and Lemming -----	36
Paget -----	48
de Kop -----	29
Sprengel -----	27
Sibley, Giss, Baker, Williams -----	34
Lee -----	40
Rodman -----	30
Haggard and Douglass -----	26
General Average -----	34

Therefore, surgery or irradiation which does not prolong life beyond three years is not curative but merely palliative.

One need only to refer to the published statistics of authors, reports of the Cancer Commissions, or to review his own cases to be convinced that there is a vast difference in the life expectancy between those patients operated upon while the disease is confined to the breast and those patients having the axillary metastasis at the time of operation.

The report of the British Ministry of Health in 1916 on "The Late Results of Operation for Cancer of the Breast" demonstrates most graphically the importance of the time factor. In this survey on end-results from radical mastectomy the following conclusion is reached:

CLOPTON, MALVERN B.

Radical operations between 1912-1928

Total Cases -----	
Breast only involved (Group I) -----	
Living and well ----- 5 years -----	
Living and well ----- 10 years -----	
Breast and axilla involved (Group II) -----	
Living and well ----- 5 years -----	
Living and well ----- 10 years -----	
TOTAL living and well ----- 5 years -----	
TOTAL living and well ----- 10 years -----	

Cases	Per Cent
126	
37	
24	64
10	27
89	
27	30
8	9
51	40
18	14

MASON, JAMES M.

Five year cures in series of 41 breast cancers

Lymph nodes not involved at operation (Group I) -----	
Living and well ----- 5 years -----	
Lymph nodes involved at operation (Group II) -----	
Living and well ----- 5 years -----	

14	
12	85.7%
27	
10	36.0%

The extreme importance of undertaking the complete operation while the growth is still confined to the breast is demonstrated; given these conditions it is rare for a patient to die of the disease within ten years of the operation. On the other hand it is the exception for one undergoing similar treatment after the growth has ceased to be local to be alive ten years after operation. Or, expressed in percentages we have:

Class 1. (Growth limited to breast) -----	90.1%
alive ten years after operation.	
Class 2. (Axillary glands involved) -----	91.3%
dead within ten years after operation.	
Class 3. (Advanced cases) -----	94.4%
dead within ten years.	

Harrington reporting results of radical amputation for unilateral cancer of the breast; three, five, ten, fifteen and twenty years:

Total cases (1910-1930)	3,740
Without involvement of lymph nodes	
1,214 cases (32.5%)	
Living at 3 years -----	81.5%
5 years -----	72.5%
10 years -----	50.2%
15 years -----	36.4%
20 years -----	21.2%
With involvement of lymph nodes --	
2,526 cases (67.5%)	
Living at 3 years -----	41.1%
5 years -----	26.9%
10 years -----	13.0%
15 years -----	8.6%
20 years -----	6.9%

HARRINGTON'S cases:

Group I	
3 years -----	81.5%
5 years -----	72.5%
10 years -----	50.2%
15 years -----	36.4%
20 years -----	21.2%
Group II	
3 years -----	41.1%
5 years -----	26.9%
10 years -----	13.0%
15 years -----	8.6%
20 years -----	6.9%

GREENOUGH, R. B.

Five-year cures of cancer of the breast at the Massachusetts General Hospital:		
TOTAL CASES, 1911-1926	574	
Axillary glands not involved (Group I)	158	
Five-year cures	98	62.0%
Axillary glands involved (Group II)	316	
Five-year cures	75	24.0%

MATHEWS, F. S.

Ten-year survivors of radical mastectomy:		
Patients without nodes (Group I)	33	
Surviving ten years or over	19	57.5%
Died since	1	
Patients with glands (Group II)	77	
Surviving ten years or over	9	11.7%
Died since of cancer	3	

From March 1, 1910 to June 1, 1939, at the Guthrie Clinic, 576 patients with malignancy of the breast have been operated upon; four were males, three are dead and one has a recurrence. Thirty patients were found inoperable through

a primary axillary incision and 17 of this number died within one year after the examination. The results in a careful follow-up study of 318 of the cases were found to be as follows:

GROUP I—148 cases:		
Living 5 years, without axillary involvement	97 cases, or	65.5%
Living 10 years, without axillary involvement	60 cases, or	40.5%
GROUP II—170 cases:		
Living 5 years, with axillary involvement	39 cases, or	22.9%
Living 10 years, with axillary involvement	16 cases or	9.4%

The history of the development of the radical operation for the breast cancer is of interest. We owe our modern ideas of cancer of the breast, its modes of metastasis, and its surgical attack to the early works of von Volkmann, Kuester, Gerster, Heidenhain, Willy Meyer and Halsted which have as underlying principles the wide removal of the breast with the pectoral muscles, and a thorough dissection of the axillary space. In recent years many operations have been devised by and named after different men which can lay no claim to originality other than a new method of skin incision. Nothing new, except the removal of the fascia of the recti muscles as advocated by Handley in 1906, has been added to the original principles of the radical operation for breast cancer since 1894, when Willy Meyer and Halsted described almost simultaneously their operations.

Cancer of the breast was known by the early surgeons to involve the axilla. In 1875 von Volkmann, as a result of microscopical study, found the mammary lymphatics communicating with those of the pectoral fascia, and advised the removal of the breast, the pectoral fascia, and dissection of the axillary space. Kuester, in 1883, urged that the axilla be cleaned out in all cases of breast cancer. A. G. Gerster, in 1885, advocated axillary dissection before removal of the breast. He

believed that the handling of the tumor during the operation increased the risk, forcing cancer cells into the lymphatics. The great work of Heidenhain, in 1889, is well known. He made a careful microscopical study of eighteen specimens and showed that in a number of cases, the pectoralis major muscle had become involved with cancer cells. He advised complete removal of the pectoral muscle if the tumor was in any way attached to it.

Willy Meyer in one of his last papers said, "Following the work of Heidenhain, it became customary for surgeons to remove the breast with the pectoral fascia, clean out the axilla, and then to extirpate the muscle as a second part of the operation." In 1894, the great works of Willy Meyer and Halsted were published almost simultaneously, each advocating the wide removal of the breast, including both the pectoral muscles and a thorough anatomical dissection of the axilla. These two operations differ in point of attack. Meyer explored the axilla first and ligated the vessels at their point of origin. Halsted removed the breast first and cleaned out the axilla last.

Many different incisions have been planned since the papers of Meyer and Halsted, notably by Warren, Rodman, Jackson, Elsberg, and Stewart; but the underlying principles of the operation have been the same as suggested by Mey-

er and Halsted, with one notable addition, that of the removal of the fascia of the recti muscles to prevent fascial plane metastasis, suggested by Handley in 1906. This principle is sound, and has been adopted by most surgeons doing the radical breast operation.

The operation of Rodman was described by the author in 1914 under the name of the Rodman operation. In this paper he quoted Rodman, who said: "Willy Meyer first suggested and employed the method of primary axillary attack," and he emphasized the points of advantage he thought this method had over the one of primary breast attack. In the first place it gives the opportunity of inspecting the condition of the axilla before deciding whether it is justifiable to remove the breast. Occasionally the axilla will be found to be so extensively involved by cancer that operation for the removal of the breast is contraindicated; whereas if the breast is attacked first and the condition of the axilla be discovered later, a needless operation may have to be completed. In thirty of our inoperable cases the operation was discontinued after the axilla upon exploration was found to be hopelessly involved. In attacking the axilla first, the dissection is carried from a clean to an infected area. The tumor in the breast is handled less and the danger of expressing cancer cells into the lymphatic circulation is greatly reduced. By ligating the axillary vessels at their points of origin, the amount of blood lost is greatly reduced, and the operation made much less difficult. More blood is lost in any type of operation which attacks the breast first, instead of the axilla, because the same vessels are cut across several times in working toward their points of origin.

Rodman thought the function of the arm was better if the clavicular portion of the muscle was not removed, but he excised the entire muscle if the growth was in the upper outer quadrant of the breast. Meyer, fearing muscle metastasis, removed the entire muscle. Rodman planned to keep his incision away from the arm, in order to give a better functional result and to lessen the danger of postoperative edema of the arm. This is a very important point but we believe that postoperative edema of the arm is largely caused by a mild infection in the axilla and therefore we stress the im-

portance of a sharp anatomical dissection of the axillary contents to reduce trauma, which favors infection, to a minimum.

A brief description of the Rodman operation is as follows: A primary straight incision is made, beginning one inch below the clavicle, two fingers' breadth from and parallel to the sulcus between the deltoid and pectoralis major muscle. It extends well below the free edges of the pectoralis major muscle and is usually five or six inches in length. We do not always employ the Rodman incision, believing the best results are obtained when the incision removes the greatest amount of skin around the region of the growth, but for tumors in the upper and lower quadrants of the breast, it permits the removal of sufficient skin; however, for growths in the extreme outer and inner quadrants, we often employ the transverse incision suggested by Stewart.

The axilla is exposed by severing the tendons of the pectoralis major and minor muscles at their insertions. The acromiothoracic and the long thoracic arteries run parallel (above and below respectively) to the tendon of the pectoralis minor muscle, and should not be injured during this step of the operation. By cutting the axillary fascia, the space of Morenheim is well exposed.

The dissection of the axilla begins at the apex, and extends from above downward and from within outward. As the sheath and fat are removed from the axillary vessels, the acromial, long and alar thoracic, and the subscapularis branches of the axillary artery are encountered in the order named. These with their accompanying veins, are cut and the proximal ends ligated. No attempt should be made to remove individual enlarged glands. The contents of the axilla should be removed en masse as a gland-bearing fascia by sharp dissection. When this dissection has been completed, nothing is left on the inner aspect of the axilla but the posterior thoracic, or nerve of Bell, and, posteriorly, the subscapular nerve.

The breast is removed by an incision beginning at the middle of the primary incision, encircling the breast, and extending downward to a point midway between the ensiform and umbilicus. The oval should be five or six inches or more at its greatest breadth, and its margins should not come within two and one-half

or three inches of the growth. The subcutaneous tissues are cut on a slant, so that the skin is everywhere undermined for a distance of several inches from the edges of the wound. Rodman and Judd practiced free dissection of the superficial and deep fascia, as first advocated by Mr. Handley, who believes that the peritoneal cavity has been invaded by the permeation of cancer cells along fascial planes, the rectus particularly.

While a large amount of skin equidistant in all directions must be removed, it is rarely that skin-grafting ever becomes necessary to close the wound. Judd showed that recurrences in the skin occur more frequently in cases in which a large amount of skin had been removed but the fascia underneath saved, than when less skin was taken and a very free dissection of the superficial and deep fascias were made. He believed that skin nodules are developed from extension along the lymphatics in the fascia and not from those in the skin itself and urges a wide dissection of the superficial and deep fascia beginning in the axilla, extending down over and including the pectoral muscles from the sternum outward over the muscles of the back and downward, including the fascia of both recti. All vessels are ligated with fine silk and complete hemostasis should be secured before the wound is closed.

We do not employ drainage in any of our cases and we rarely are troubled with collections of serum. A ten yard long and six inch wide gauze roller bandage wound snugly about the abdomen, then tightly over the chest and finishing as a spica over the shoulder is an important first dressing. A rubber sponge, placed in the axilla and one along the suture line, is a factor in obliterating dead space and prevents the formation of serum pockets. We encourage the immediate postoperative use of the arm by the patient and employ passive motion and massage early. There has been good postoperative function of the arm in nearly all of our patients and edema of the arm is a rare occurrence.

CONCLUSIONS

From reported statistics there are from 60-75% of five-year cures in patients without axillary involvement at the time of operation. This percentage of five-year cures drops from 20-25% if there is axillary involvement at the time of op-

eration.

In Group II with axillary involvement at the time of operation not more than 10-13% of patients are alive at the end of ten years.

Preoperative and postoperative irradiation is a valuable adjunct in the treatment of cancer of the breast—as all present reports indicate that it has a distinct influence upon reducing the mortality.

Palliative irradiation should be used in inoperable late cases of cancer of the breast.

The importance of the operation of radical amputation of the breast including the removal of both pectoral muscles with an anatomical dissection of the axillary contents is stressed.

DISCUSSION

J. Duffy Hancock, Louisville: Those of us who have known and heard Dr. Guthrie before were well prepared for the excellent essay that he has given us. While his work and his studies are ultra-scientific, yet his presentations are always most practical. He has well emphasized a point that I think we are prone to forget at times, namely, that cancer is exceeded only by heart disease as a cause of death in this country. Certainly any disease which ranks second among all possible causes deserves a careful consideration.

The lesions of the breast particularly lend themselves to campaigns that might be waged for the control of cancer. In most instances there is a lump which appears early and which the patient should detect. The results of treatment are in inverse proportion to the time that the case is seen. As brought out by Dr. Guthrie, if the patient is operated on before there are axillary metastases, we can expect approximately 75 per cent cures over a five-year period. On the other hand, if axillary metastases have occurred, then we can expect only about 25 per cent survivals.

This makes a very easily understood statistical explanation for the patient and is used a great deal in the campaign against cancer.

I thought you might be interested to know the statistics here in Kentucky. In 1938 there were 134 deaths from cancer of the breast. Just three or four years ago there were 173 deaths from cancer of the breast in Kentucky. We hope that the cancer campaign which has been carried over the state not only by the doctors but by the lay women has had something to do in the reduction of this mortality from the disease.

The pre-operative radiation which Dr. Guthrie

mentioned I think is not regarded quite so highly in this section of the country as it is by him. Most of us use it to try to make operable certain cases which appear inoperable at first glance, and quite often are able to do so, but as a routine measure I think that most men here do not use the pre-operative radiation.

In regard to the Rodman operation itself, his explanation and his slides and illustrations were so perfect that there is nothing that one could add to a discussion of the operation. I still have to use drainage. I have not been able to have such a small accumulation of serum that I felt safe not to use drainage, but those are simply minor considerations, and the picture that he has given us well justifies the enthusiasm with which we all greeted the announcement that he was to be one of our guest speakers.

D. Y. Keith, Louisville: I am sure most radiologists would be glad to know that the surgical profession were practicing what the speaker has said today he is practicing in regard to pre-operative radiation. I am sure an increase in the number of living cancer patients could be recorded at the end of five or ten years, if this procedure were used as a matter of routine.

X-ray is also of value in the case that is inoperable, where you have a sloughing breast and a mass of glands in the axilla. Many of these can be made operable, others made comfortable, and I am sure life can be extended if Roentgen therapy is correctly used.

The other point of interest in an educational way that I think should be considered, particularly in those cases where a biopsy has been taken before attempt at radical surgery, is the selection of radiation, as far as the type of radiation is concerned, and the type of tumor. If you know that you have a scirrhous carcinoma or any type of tumor that is resistant, you can improve your results by pre-operative radiation using a higher voltage than most physicians are using. We refer to super voltage, the term super voltage applying to voltages above 200,000, and filtration of 4 to 6 mm. of copper.

There are several institutions in this country that have published their results in cancer of the breast where super-voltage has been used. In all instances there has been a gain.

My experience in the past four years in the use of 400 K. V. therapy reveals that there is a decided improvement in the results. This is particularly true in scirrhous carcinoma of the breast and in squamous cell carcinoma of the oral cavity and the urinary bladder.

Filtration equivalent to 6½ mm. of copper will give less permanent skin changes when examined by palpation and inspection; the skin tanning is decidedly less.

Louis Frank, Louisville: I think the most striking things about this paper are the statistical figures that are shown in the early treated in comparison with the late treated cases and the cases which have been operated before glandular involvement and after glandular involvement. I believe also a valuable point which has not been stressed, although it was touched upon by Dr. Hancock, is what education or propaganda has done in bringing these patients to the surgeon. You will remember the figures that were thrown on the screen. In the one-year period there were 35 per cent, I think, of patients who had come to operation earlier after propaganda had been put out, whereas in the six months' period the increase was 200 per cent. If we bear in mind the result of operation in relationship to the time factor, this is most striking, and I think one of the most hopeful points that we have to consider.

I don't know of what patients Dr. Guthrie speaks when he speaks of glandular involvement. I think our statistics are probably a bit confused because some men speak of glandular involvement at a time when enlarged glands are palpable; others group their cases of glandular involvement when glands are found during operation. Again, the fact that glands are found during operation or even are palpable does not always mean that they are carcinomatous in character. I think these points probably should be studied and brought out and evaluated by those men who are doing studies in the results of carcinoma of the breast and giving us their reports, so as to enable us to evaluate the procedures which we should carry out.

We believe that the pre-operative treatment, as I expressed to this society, I think, about three years ago, with X-ray therapy is of distinct value. Adair, on my last visit to him at the Memorial Hospital, was at that time also putting in his string of radium along the vessels to study the effect of radium treatment upon the enlarged glands. I believe since that he has not found it of very much value and has abandoned it. However, we do know that there is a decided value in the use of radiotherapy in these cases.

I believe that it would be well if we could consider every breast tumor as carcinoma until it is proved otherwise. The only way to prove it, even in a small growth, of course, is by excision, and the excision, as Dr. Guthrie has stressed, is a wide excision. Under no circumstances should the tumor be cut into, not that I believe there is a great deal of danger in transplantation, but the stimulation to the growth upon incising it is very, very remarkable. We have had occasion to see one or two cases in which the growth

had been cut into in removing a specimen for biopsy, and they were most distressing cases.

I think also the age factor at which the tumor appears in the individual is one that we should consider in studying the results of our cases, because we know that in the younger women the survival is not so long and that the dangers of metastases or spread of the disease are much greater.

We certainly should X-ray the chest, we should X-ray the long bones for metastases before we operate these cases, because it is an undisputed fact, a fact which can be proven, that very often in a very small growth we have distant metastases at the time of operation. I am not only inclined to think, but I positively believe that all the cases that have distant metastases have these metastases at the time of operation. We cannot always discover them by our X-ray studies, but the focus may lie dormant for quite a number of years. I have known them to lie dormant as long as nine years. In our studies we base our results on a seven-year period from the time of operation.

Donald Guthrie (in closing): I appreciate very much indeed the remarks of the gentlemen who discussed the paper. We drained every breast and thyroid case until we began using silk about five years ago. Since that time we have not drained any breast cases and only an occasional thyroid case.

I believe that the commercial sponge which I mentioned in my discussion is a great factor in obliterating dead space and preventing the collection of serum.

I hesitate to say anything about X-ray. I do not think the general surgeon should because he knows so little about it, but the policy which we believe of value is not to employ pre-operative X-ray in the patient who has no palpable axillary glands but to use it only in cases which show axillary metastasis.

Dr. Blackburn, who considered the patient as an individual and not as an interesting case made a wonderful contribution this morning, that is the paper I should like to discuss because it appealed to me very much.

I believe, as we become more scientific, it is becoming more difficult to practice the art of medicine in our teaching hospitals and in our big institutions, the more we withdraw the art of medicine from our practice the more we are driving our patients to the cults. The patient with a breast lesion needs to be treated with the best type of suggestion and psychology for nearly every one of them is disturbed emotionally and they need all the art of medicine we are able to give them as well as our scientific skill.

SYPHILIS CONTROL IN KENTUCKY BY MEANS OF A MECHANICAL SYSTEM OF MORBIDITY REPORTING

JOHN R. PATE, M.D.

Louisville

The following report gives the results of a study, made from existing records of the Central Tabulating Unit, on the progress of the Venereal Disease Control Program in 86 public health clinics sponsored by the State Department of Health. This program was initiated and has been operated in cooperation with the United States Public Health Service and the Works Projects Administration, State-Wide Health Project O. P. No. 65-1-43-116.

The purpose of this study was to find the extent of the problem of syphilis in Kentucky, as determined by the population in Venereal Disease Clinics, and to determine whether there is a better control of patients under treatment since the installation of a mechanical system of record keeping.

For use in this study records of new admissions were complete since July, 1938. All other data was available for the period May, 1939, through October, 1939.

ADVANTAGES OF A MECHANICAL SYSTEM OF MORBIDITY REPORTING¹

The purpose of a mechanical system of reporting venereal diseases is:

1. To furnish current administrative and control reports.

(a) To expedite selection of individual patients in need of special service.

(b) To appraise currently the activities of the clinics.

(c) To provide an accurate report of individual patients.

2. To provide data with which to establish a trend in order to determine the extent to which the disease is being controlled.

Prior to the development of the mechanical system of record keeping by means of a central tabulating unit, a rapid evaluation of mass data and immediate selection of an individual patient was not possible. Systems in use were, for the most part, files for patients with early syphilis, monthly reports showing a count of persons under treatment and total drugs administered. Reviews of accumulated case folders for the purpose

of appraising effectiveness of the clinics' efforts were laborious and time consuming. Patients who had lapsed from treatment before receiving maximum benefits had disappeared. Failure to have a rapid means of selecting individual patients was a public health problem and prevented the most efficient utilization of follow-up services.

An inventory of the active cases under treatment was necessary to inaugurate the mechanical system for recording venereal diseases. In order to punch all cards and process the data, a central tabulating unit was set up in the State Health Department. Briefly, the procedure used for securing required information consisted in maintaining an up-to-date report of every service rendered the patient. Some of the progress and control reports prepared for use of the clinic director and health officer are:

1. Monthly Population Reports.

(a) Patient population under treatment.

(b) Clinical status of patient load.

2. Monthly Treatment Status Reports.

(a) Total patients by present diagnosis.

(b) Time period during which patient has been under treatment.

(c) Amount of drugs administered.

(d) Patient status in clinic.

3. Individual Case Reports.

(a) Lapsing cases admitted within the past four years who have received less than 20 arsenicals and 20 heavy metals.

(b) Non-lapsing patients admitted within the past two years who have received less than three treatments during the current month.

(c) Non-lapsing patients who have

received over 60 arsenicals or 100 heavy metals.

4. Pregnancy Reports.

(a) Women with syphilis throughout each pregnancy.

5. Monthly Activity Report.

(a) Actual number of injections of drugs given (preventing any long time storage of drugs).

(b) Epidemiological and social service activities.

PREVALENCE OF SYPHILIS IN KENTUCKY: The term "prevalence," as used in this report, means the number of persons under treatment for syphilis, day by day, in all public health clinics in Kentucky. There are approximately 10,000 patients with syphilis constantly under treatment in these clinics.

Although the negroes represent only 8% of the State's total population, there are almost as many cases of syphilis among negroes in these clinics as there are white patients. Forty-eight per cent of all patients under treatment as of October 1, 1939, were negroes. It is assumed that approximately all negroes under treatment are in the clinics.

In Table I, the crude prevalence rates for Kentucky, 1939, are given for white and negroes. Chicago prevalence rates are shown in comparison.²

Rates shown here are an indicator for the need of treatment facilities supported by public funds. The number of patients shown are only those under treatment in clinics sponsored by the State Department of Health and does not include persons who are under the treatment of private physicians. It is extremely interesting to note how closely the crude rates for clinic patients, calculated for Kentucky, approach those for Chicago. (Table I).

TABLE I

Patients Under Treatment per 10,000				
Population: Kentucky 1939, Chicago 1937				
Kentucky Population				
	Total Patients	Estimated 1939	Rate	Chicago Rate
White -----	5,547	2,565,334	22	28
Negro -----	5,135	223,072	230	237
<hr/>				
Total -----	10,682	2,788,406	38	44

An estimate of the number of cases treated by private physicians is extremely difficult to make. In 1938, a statistical survey of syphilis, made with the aid of the Works Progress Administration in twelve counties in Kentucky, was undertaken in order to determine the total number of cases under treatment during the survey period and the distribution of these cases between physicians and clinics. The period of study was February through May, 1938. The report is not a complete one since only 73% of the physicians made returns. It is felt that the treatment of syphilis is largely the problem of public treatment facilities.

Approximately one-half of the total number of physicians in the State are in the twelve counties selected for the survey. Of the 1,057 physicians in these counties, only 1.8% reported treating more than one patient for syphilis during the four months period.

TABLE II
Percentage of Total Patients Under Treatment in Kentucky Clinics by Stage of Syphilis October, 1939

	Per Cent of Total
Primary -----	9.6
Secondary -----	12.6
Latent -----	66.4
Late -----	5.8
Congenital -----	5.3

Fifty-seven per cent of the patients under treatment in Kentucky Venereal Disease Clinics are female. This is true despite the fact that about fifty per cent of patients admitted are male and fifty per cent female. The possible explanation is that approximately three-fourths of patients admitted to clinics during the primary stage are male, since the primary symptoms are more evident in males than in females. The length of treatment required for those admitted in the primary stage is relatively short. Therefore, since the percentage of late syphilis in new admissions is higher among women and longer treatment is required, at any given time there would be a higher percentage of women than men under treatment.

INCIDENCE: The term "incidence" indicates the discovery rate, or the number of new patients who seek treatment in the clinic. Annual incidence is the number of new patients admitted during the year July, 1938, through June, 1939.

TABLE III.
Annual Attack Rate For Syphilis in Kentucky Clinics July, 1938, to 1939
(Rate per 10,000 population)

	Total Patients	Estimated 1939 Population	Rate
White ----	3,643	2,565,334	14
Negro ----	3,415	223,072	153
<hr/>			
Total -----	7,058	2,788,406	25

The same may be said for the rates given here as for the prevalence rates. They are necessarily crude. Within the year July, 1938-July, 1939, there were about 7,000 persons seeking treatment for syphilis. Based on clinic patients, the incidence rate for syphilis per 10,000 is 25 and the prevalence rate 38. Although the rates are crude, and as absolute numbers do not mean much, they may be observed in relation to each other. The difference between the two rates would tend to indicate that patients are under treatment for more than one year. If the rates had been approximately the same, the indication would be that patients were under treatment for about one year.

TABLE IV
Percentage of Total Patients Admitted to Kentucky Clinics by Stage of Infection on Admission of 7,057 Patients
(Shown in comparison with the percentage frequency of each stage of syphilis on admission in Chicago, 1937)

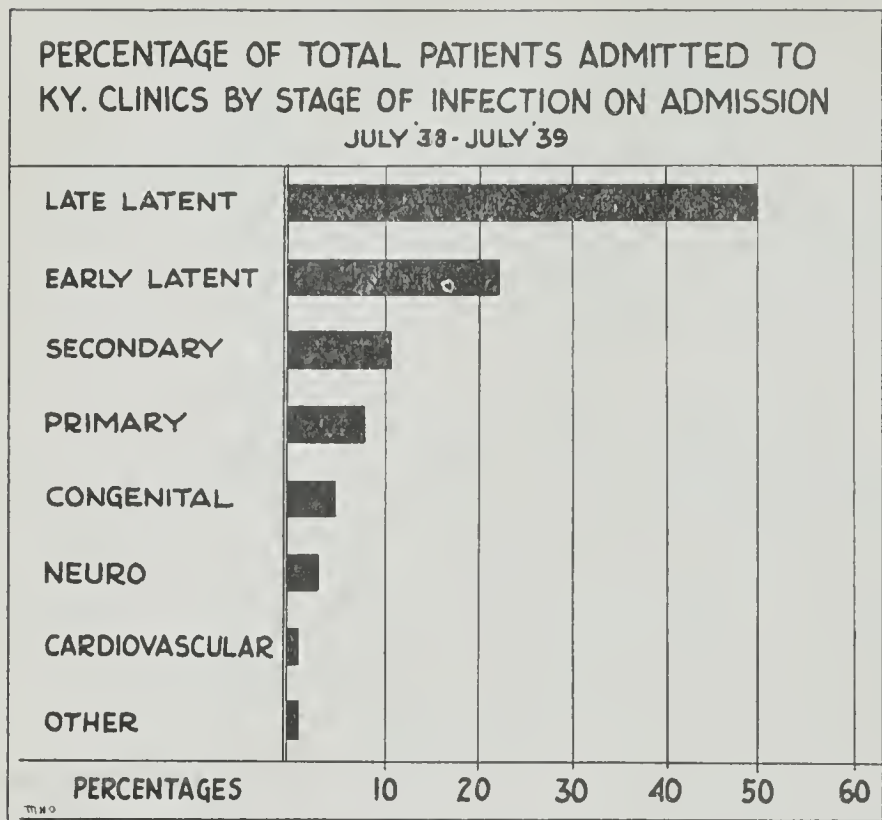
	Kentucky Clinics		Chicago
Primary -----	8.1		5.9
Secondary -----	10.5		9.4
Latent:			
Early -----	22.1		10.6
Late -----	50.	72.1	43.6
Late:			
Cardio -----	.9		4.9
Neuro -----	2.7	4.5	15.0
Other -----	.9		3.4
Congenital -----	4.8*		7.2

*One-fifth of patients admitted with congenital syphilis have had previous treatment.

From observation of Table IV and Graph I, it is noted that only 18% of the total patients admitted seek treatment during the early stages of infection (primary and secondary stages). More than 80% of patients under treatment have failed to take advantage of the opportunity that early treatment affords.

The percentages found in the Chicago study are shown in comparison. Great differences are immediately obvious. In

GRAPH I



Kentucky clinics the percentage of total patients admitted with primary, secondary and latent syphilis is higher than in Chicago. The percentage of those admitted with late syphilis is, on the other hand, much higher in Chicago. This is an indication that Chicago is doing a great deal more than Kentucky in treating patients with cardiovascular and neurosyphilis. Recently some work has been done in Kentucky in establishing additions to the already existing clinics in the State Institutions for treatment of neurosyphilis. Arrangements have been made, through the State Department of Health, for supplying additional drugs.

Worthwhile results may be expected from studies of patients under treatment in the institutions of the State, because each is a closed clinic and each patient can be kept under treatment for a full period.

TABLE V

Percentage of Total Patients Admitted by Stage of Infection On Admission and by Sex of Patients

	Sex of Patients	
	Male	Female
Primary -----	6.1	2.0
Secondary -----	4.3	6.2
Latent:		
Early -----	9.2	12.9
Late -----	25.2	34.4
Late:		
Cardio -----	.6	.3
Neuro -----	1.4	2.6
Other -----	.6	.3
Congenital -----	2.1	2.7
Total -----	49.5	50.5

Age Incidence: Approximately one-half of the patients admitted to clinics during the year studied were under 30 years of age. (See Table VI showing new admissions by age groups, Graph II.)

More than 70% of the patients admitted in the early stages were under 30 years of age. Patients with late forms of syphilis over 30 years of age make up about 80% of the total patients admitted at these stages of infections. The two immediately preceding statements are evidence of the fact that syphilis is acquired in early adult life. Neglect of

TABLE VI
New Admissions to Kentucky Syphilis Clinics
by Stage of Infection and Age of Patient
July, 1938—July, 1939

Age Group	Primary		Secondary		Latent		C. V.	Late Neuro	Other	Pre-natal	Total Patients	% of Total Pts.
	Primary	Secondary	Early	Late	Early	Late						
Under 2 ----	1	1								66	68	
2 ----		2								14	16	
3 ----		2						1		10	13	1.1
4 ----										22	22	
5- 9 ----	1	4								50	55	.1
10-14 ----	7	14	29					1		62	113	1.6
15-19 ----	119	177	369	27			2	3	1	49	747	10.6
20-24 ----	185	192	728	108			6	10	4	20	1,253	17.8
25-29 ----	108	137	232	772			5	11	10	15	1,290	18.3
30-39 ----	98	116	113	1,307			15	61	16	14	1,740	24.7
40-49 ----	32	49	43	706			17	43	13	6	909	13.9
50-59 ----	8	18	14	364			12	42	17	1	476	6.8
60 and over	10	10	5	139			11	12	3		190	2.7
Unknown --	4	19	27	104			1	4	2	4	165	2.4
Total ---	573	741	1, 60	3,527			69	188	66	333	7,057	100.

treatment is probably somewhat dependent on the early age at which syphilis is acquired and ignorance of necessity of having the disease promptly treated.

This neglect, in turn, is no doubt attributable in some measure at least, to the fact that a considerable percentage of cases of syphilis in adolescence and early adulthood are contracted before the patients have become self-supporting or have acquired any appreciable earning power.

GRAPH II

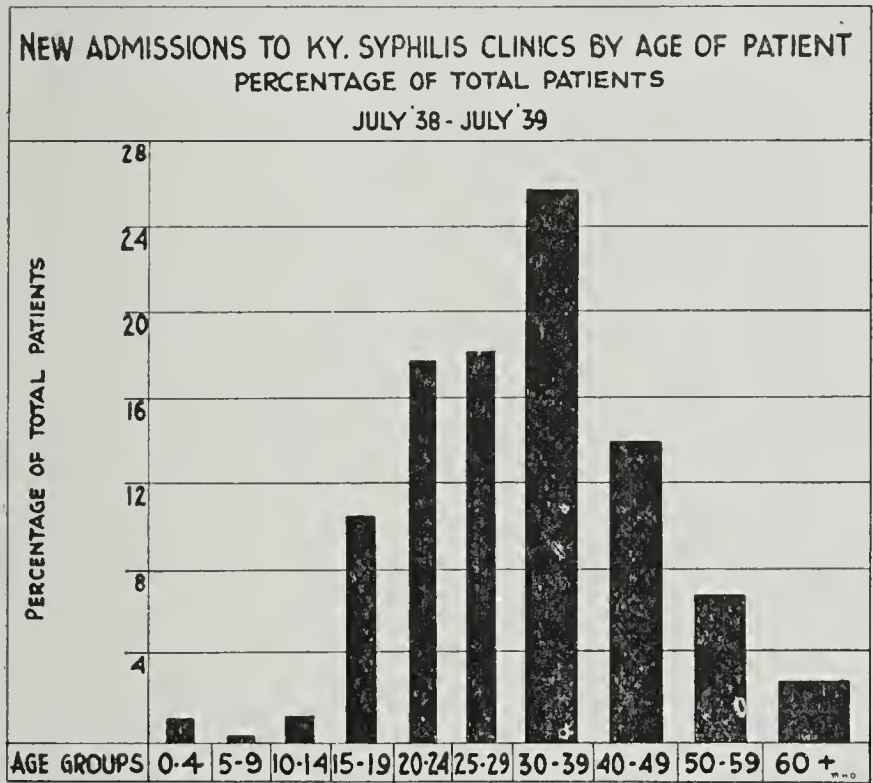


TABLE VII

Average Amount of Treatment Each Month
Given to Patients Admitted to State Department Clinics During the Six Months,
May Through October, 1939

Type of Treatment	Aver. Amt. of Treatments per Month
Arsenicals -----	7,954
Tryparsamide -----	209
Bismuth Insoluble -----	13,480
Mercury -----	75
Total Treatments --	21,718

The average number of patients under treatment each month was 7,572. The average treatments per person per month was 2.87, or 34 treatments per person for a year. According to the annual report made to the United States Public Health Service by the Venereal Disease Division in 1938, there was an average of 12 anti-syphilitic treatments per patient for the year. During the previous year (1937) this average in Kentucky was only 3.

EPIDEMIOLOGY: Reporting under this heading is considered to be very incomplete. Of the contacts listed less than

one-fourth are reported as being under treatment. Approximately one-fourth of the total patients under treatment are at the Louisville City Hospital clinic which makes no epidemiological report to the central tabulating unit.

SOCIAL SERVICE: The average number of interviews reported to the central tabulating unit per month for May through October, 1939, is 106. An interview is defined as a visit which a patient makes to the nurse or doctor. There has been a consistent increase in the number of interviews for the past six months. It is difficult to determine whether this is an indication of an increase in interest of the patients who are seeking treatment or whether it is due to more adequate reporting. The average number of visits reported per month which the doctor or nurse makes to the patient is 321. These figures are for all clinics reporting to the central tabulating unit, except the Louisville City Hospital which makes no report of social service to the unit.

SUMMARY

Forty-eight per cent of the total patients under treatment in Kentucky clinics are negroes.

Fifty-seven per cent of the total patients under treatment are female.

Approximately three times as many men as women are admitted with syphilis in the primary stage.

Women, as a rule, are more frequently admitted with syphilis in the later stages than are men. Thus the length of time required for treatment is longer. Therefore, at any given time, there would be a higher percentage of women than men under treatment.

Fifty per cent of patients admitted are male; fifty per cent female.

The fact that the annual prevalence rate of syphilis is higher than the annual incidence rate is an indication that patients are under treatment for more than one year.

Only eighteen per cent of the total patients admitted to the clinics seek treatment during the early stages of infection.

The average amount of antisyphilitic treatment is 2.87 per patient per month

The author is indebted to Miss Lois Skaggs, statistician, State Department of Health, for much valuable assistance in compiling the statistics used in preparation of this paper.

or 34 treatments per patient for the year, as compared with an annual average of 12 in 1938 and 3 in 1937.

CONCLUSIONS

The report shows that there is better control of patients under treatment for syphilis in Kentucky clinics than there was prior to the installation of a mechanical tabulating system. The extent of the problem is more clearly defined, because there is available more complete information on each individual patient under treatment.

Weakness in reporting by clinics is especially noted under the headings of Epidemiology and Social Service.

Reports of pregnancies and outcomes were too incomplete to include in this study.

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MANAGEMENT OF SKIN CANCER

JESSHILL LOVE, M.D.

Louisville

During the past few years, the public has become more and more cancer conscious and is fast becoming more attentive to its chronic ailments that might end in a diagnosis of cancer. This is largely due to the splendid work carried on by the Women's Division of the American Society for the Control of Cancer. Their crusade against cancer has been a grim and serious understanding, and has been carried even into the backwoods through the Parent-Teachers Association and Women's Club Groups. The result is that women, particularly, have begun to talk cancer, speak of the disease freely, and submit to early care, examination and treatment; whereas, several years ago, the word "cancer" was taboo, a person with cancer was an outcast.

However, while all this has been going on, very little has been done to improve the physician's attitude. We are prone

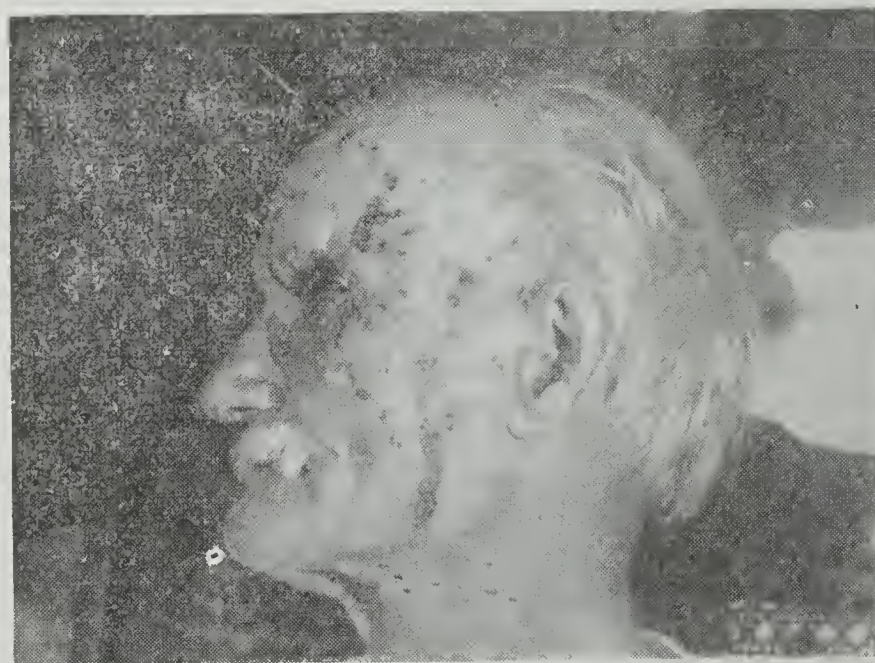
to overlook the complaints of our patients and pass up the examination on our old retainers when they ask for a "general checkup."

To complicate the problem of skin cancer, the earliest of lesions are often "watched" by the patient until drastic treatment is necessary; and occasionally the physician is guilty of the "watching" period. The patient will say that it has never "bothered" or pained him until recently. Pain with cancer is not one of the symptoms, but is a sign of impending death.

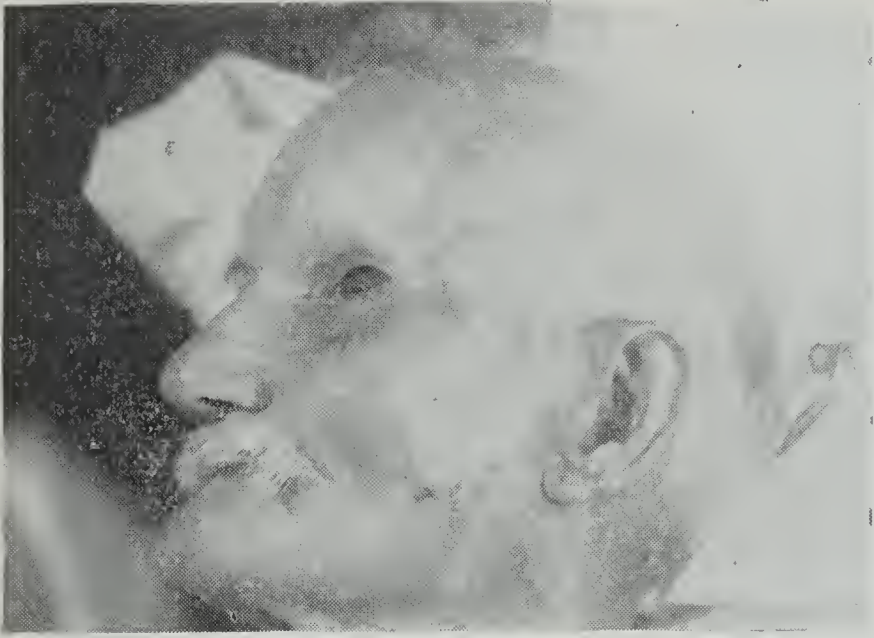
Statements from the Metropolitan Life Insurance Company show that in 1930, the mortality from malignancies was 97.2 per 100,000 population. In 1934, the rate was 106.3 per 100,000 population; an increase of two per year. A review of the past thirty years shows the rate to have doubled—moving from the eleventh numerical cause of death in 1910 to second place in 1930. Skin cancers have accounted for 3.19% of cancer deaths. The mortality rate in skin cancer has appreciably increased (2,433 deaths in 1921, 3,315 deaths in 1934), in spite of the increase of early treatments.

The occurrence of skin cancer is almost two to one in the male. This high incidence is probably due to the outdoor life and his occupational pursuits.

Skin carcinoma is more common in the temperate and sub-arctic zones than in the tropics and is very unusual in the negro, the "Latin Skin" and the deep brunette. The average age of occurrence is 52 years. Dr. Young recorded a case of a girl 15 years old with epidermoid carcinoma of cervix; and another case, a



No. 1. Extensive skin invasion by a basal cell cancer; "watched" over a period of 15 years.



No. 2. Treated with X-ray. Eye enucleated.

girl of 18 years with a basal cell carcinoma of the bridge of the nose; H. B. Anderson reported a girl of 19 years with a squamous cell cancer in an old lupus scar.

It is generally conceded by all modern workers that a true single cause of cancer is unknown. It is very logical to assume that we inherit our type of skin, which may or may not be strong in its protective and repair mechanism. The skin, which is weak in its repair mechanism will in time yield to the chronic irritations of sunlight or occupations and form degenerative keratosis.

Clinically, the practitioner has become so accustomed to seeing cancer arise from so many different lesions and apparent causes that he is prone to think of the disease as a multiple one.

The keratosis is an evidence of abnormal attempt at repair or regeneration. This abnormal tissue repair is confusing to the pathologist, who occasionally would like to report his findings as "pre-malignant" or "precancerous," but he hesitates because of the close resemblance of repair by hyperplasia and regeneration to an early malignancy.

At times, a physician may advise a patient to have certain birth marks or chronic lesions removed, stating that they are "precancerous." These lesions are those that are known to be bad actors, and most of them, when allowed to progress will end in skin cancer. Our problem then is to see and treat the "pre-cancers"; thus, preventing (?) a malignancy, ultimately lowering the mortality rate of cancer.

Some of the most frequent precancerous lesions are:

KERATOSIS:

Senile.

Arsenical.

Seborrheic.

Occupational (Farmer's Skin—Sailor's Skin).

Cornu Cutaneum.

Kaurosis Vulvae.

Leukoplakia.

LUPOID LESIONS:

Vulgaris—Tuberculosis.

Erythematosis.

Nevi.

Scars.

Radio Dermatitis.

Sebaceous Cysts.

Syphilis.

Multiple Neurofibromatosis.

(von Recklinghausen's Disease)

Xeroderma Pigmentosa.

Erythroplasia.

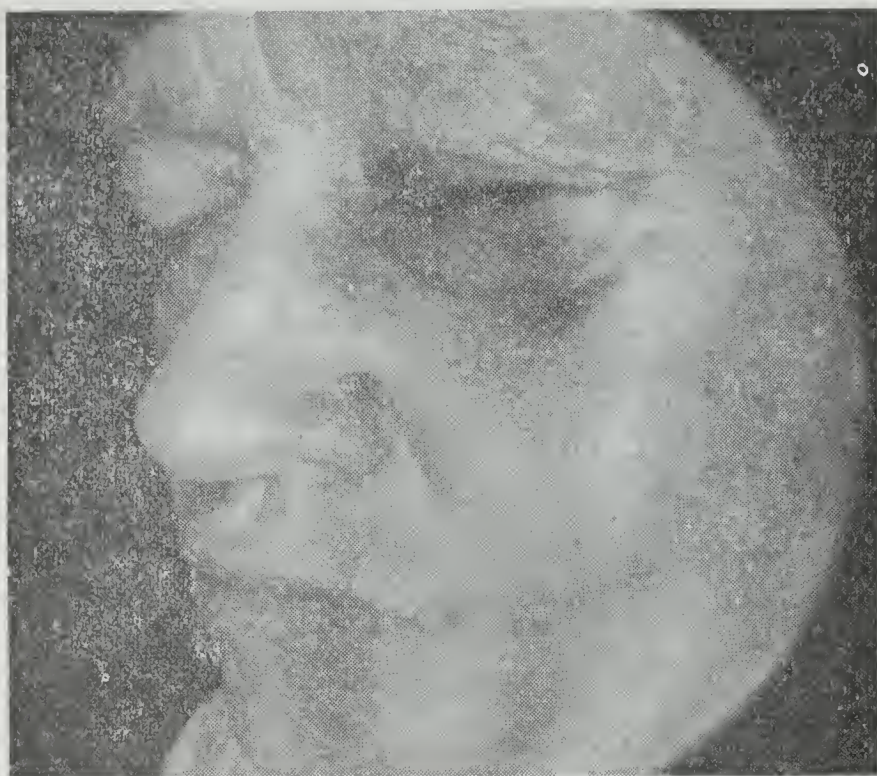
(Queyrat)

The farmer's or sailor's skin is the weather-beaten, scaly, ruddy or bronzed skin of the middle age, 45 up, seen in persons who have spent years out in the open weather. Multiple keratosis, brown scales and epitheliomata are common.

The plaques or scales may vary in color from a bronzy appearance through a brown to a blackish greasy appearance with irregular curled edges. The skin is almost always found to have a poor pigment mechanism. A history will show that sunburn with erythema occurred frequently from only moderate exposure,



No. 3. Typical farmer's skin with keratosis and indolent ulcers. All are "precancerous." May be treated with X-ray, radium or cautery.



No. 4. Early senile keratotic change at alar

began early in life, and the patient inherited the type of "complexion" from the mother's or father's people, "Just like a baby's skin," they will tell you. We have one patient with the typical farmer's skin, a lady, age 64 years, who has had forty-one skin cancers and advanced keratosis removed by irradiation and cautery from her face, neck, forearms and hands in the past fifteen years and she still has numerous lesions remaining on her skin.

The fad for sunbathing, suntanning, and over-use of ultra violet light therapy in the home may produce a goodly crop of scaly skins.

Keratosis from continued arsenic therapy (Fowler's Solution) has frequently been cited. The lesions are chronic in their progress or degenerate into epitheliomata once a keratosis from this source has been established. Some people are more susceptible than others to the effects of arsenic ingestion.

Seborrheic keratosis, associated with seborrheic skin, is possibly very low in its cancer sequelae. Many writers offer various opinions as to its outcome; some even claim that the changes are never dangerous and advocate leaving them alone. The lesions are oval, ovoid or irregularly round, having a wrinkled surface with smooth continuous edges and vary in color from a flesh tone through the browns to a greasy black. The lesions usually appear in the fourth decade and progress slowly in size.

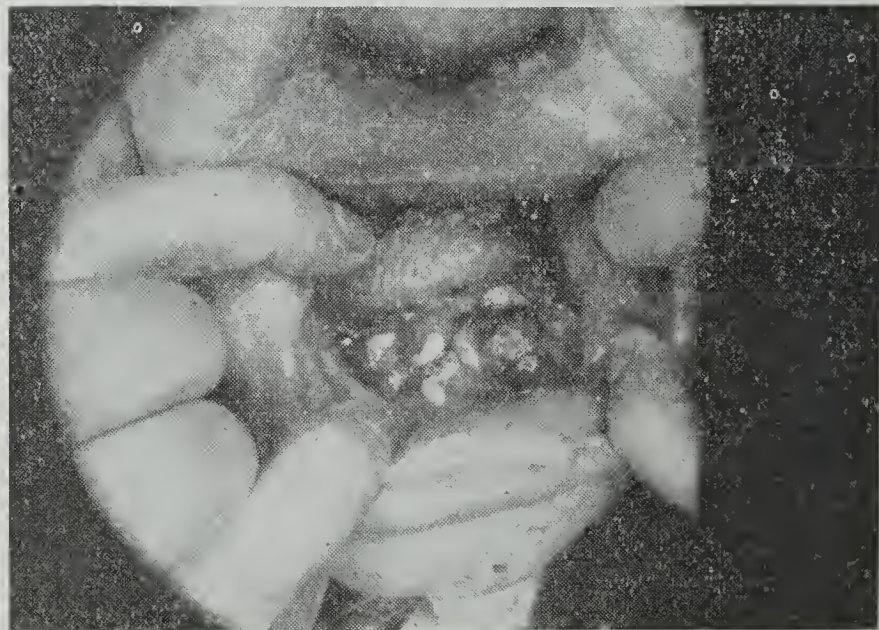
The cause of seborrheic and senile keratosis is unknown. The most plausible

explanation is that it is due to the poor repair in the aging skin. The senile keratosis vary in color and usually have scaly irregular surfaces with rough flaking edges, which when peeled off leave bleeding surfaces. This type of keratosis resembles the farmer's skin.

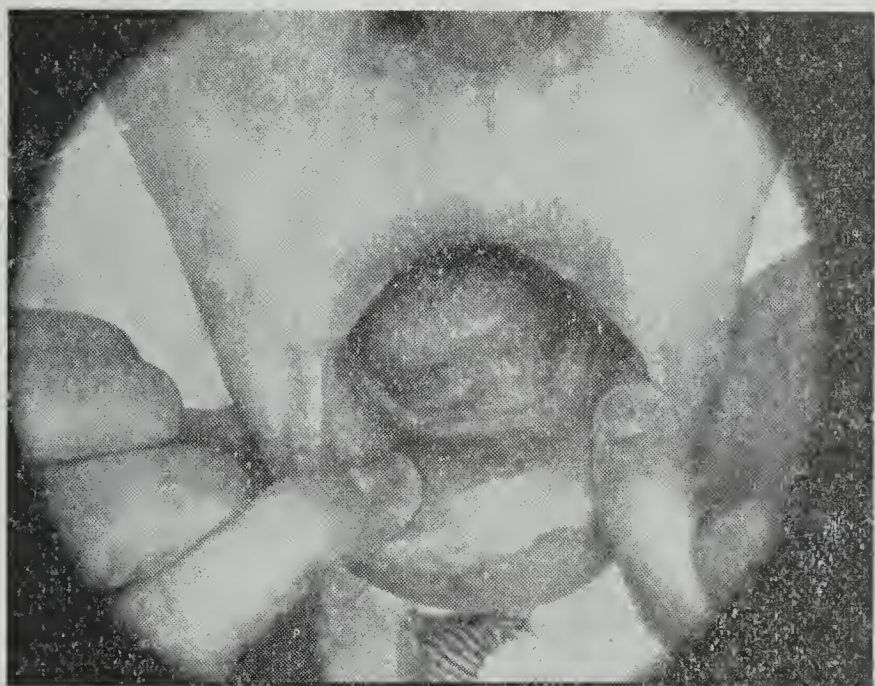
Occupational pursuits may produce chronic and continuous damage to the hands and face of the worker. Eventually, the healing process ends in a continuous scaling and keratosis. Some of these occupations are those of sailors, farmers, railway engineers, stokers, fishermen, workers in tar pitch, paraffin, petroleum, oil drillers and mechanics, etc.

Cornu cutaneum, a horn of the skin, is not often seen. The lesion usually appears on the face, and some grow to be at least one inch long. When the horn is occasionally knocked off by the patient, it will promptly reform. Histologically, the horn is an extreme hyper-keratosis of the outer layer of the epidermis; most of them form skin cancers at the base of the horn.

Kaurosis and leukoplakia are similar lesions—in that the mucous membrane is involved. Both are definitely "precancerous" and should always be treated as such. Leukoplakia of the mouth is often associated with faulty metal dental appliances or fillings, and electrostatic flow between two different metals in the mouth has been pointed out. Syphilis, tobacco chewing and smoking is frequently blamed. A chronic vaginal discharge, excessive moisture, venereal infection, eczema, pruritis and even hormone deficiency are frequently blamed as the cause of kaurosis vulvae.



No. 5. Large squamous cell cancer in floor of mouth.



No. 6. Treated by Deep X-ray. Patient is not necessarily "cured," but certainly is relieved.

Nevi occasionally will become malignant if maltreated or if subjected to continuous irritation. Those about the face and upper torso are the most benign. Melanomata are the most frequent malignancies from moles or birth marks and are highly malignant and metastasize early. They are carcinomata in spite of their unusual sarcoma name. They may or may not carry melanin. These tumors are refractory to irradiation and should be excised widely as soon as discovered. Other types of malignancies from nevi are the so-called nevo-carcinoma, which may be mixed tumors and blood vessel tumors.

Old scars from burns and chemicals will sometimes degenerate and form a small celled carcinoma usually of the squamous type, which, for years has been called Marjolin ulcer, after the author first describing it. Old X-ray and radium



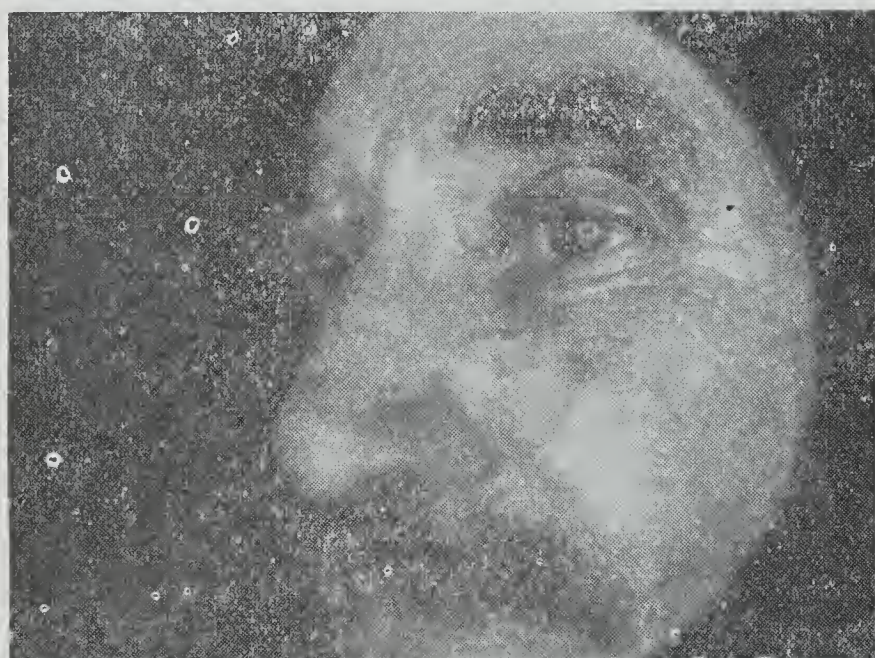
No. 7. Basal Cell cancer of cheek.

burns are notorious for producing malignancies.

The linings of the sebaceous cysts and the skin covering the neurofibroma will occasionally proliferate and become cancerous. These lesions should be promptly excised as soon as they show evidence of activity. The sebaceous cysts are apt growths for routine surgery.

Xeroderma pigmentosa is the rare condition wherein the skin is entirely lacking in the power of repair and resistance to sunlight. The condition begins in early childhood and soon terminates in multiple epitheliomata, presenting a rough mottled skin with keratotic plaques and ulcers.

Erythroplasias are seen rarely in mucous membranes of the lips or genitalia. The lesions are soft, red, velvety elevations without symptoms. The condition



No. 8. Mass was curetted to skin level and treated with X-ray.

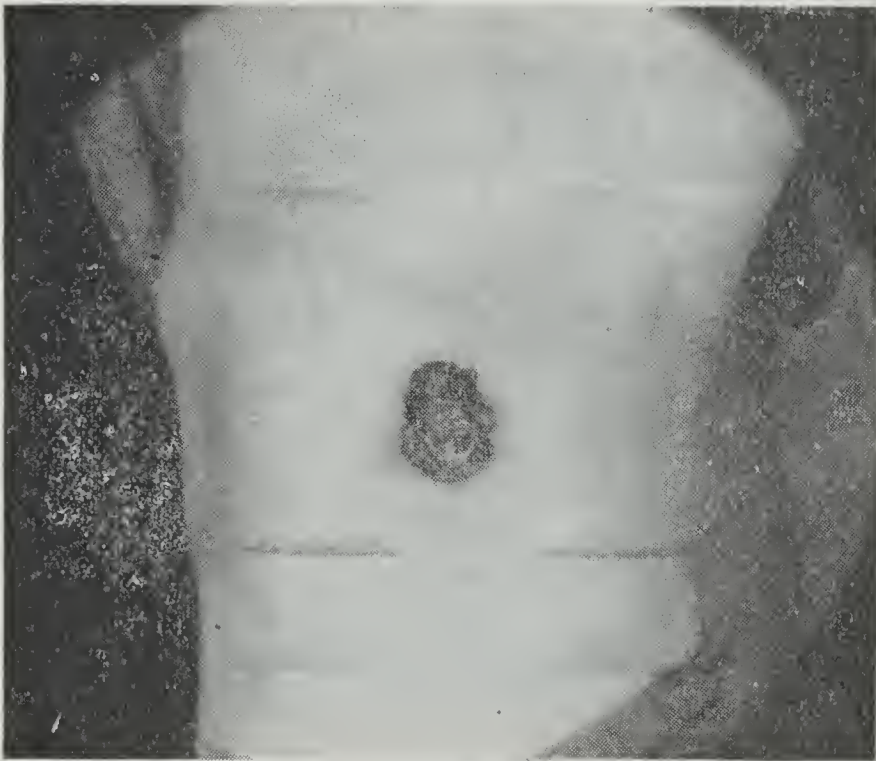
was first described by Queyrat and is a forerunner of a malignancy.

The treatment of skin cancer and the "precancerous" lesions is one of absolute importance and usually resolves into scalpel surgery, electrosurgery, coagulation, cautery, dry ice, or radiation. The permanent success depends on the proper choice of treatment. A combination of two or more of the modes mentioned might be the best means. For instance, surgery and radiation is most popular.

Smaller lesions, "precancerous" or malignant, may be excised when so located that a goodly margin of skin may be sacrificed. Many surgeons have contracted for a recurrence by not doing a wide and deep excision. Wide and deep excisions about the face, nose or ear are, of course, inadvisable and destruction of

the tongue or lip would not be plausible, in which case, irradiation alone may be employed. Usually radiation to lesions of the face will leave a more desirable and cosmetic acceptable scar than a form of surgery.

Early lesions and "precancerous" changes may be effectively treated by superficial X-ray or radium. The word superficial is a descriptive term, meaning, of course, only "skin deep." By employing greater voltage and milliamperage or larger amounts of radium at a distance, the rays may be allowed to penetrate deeper into the tissue. Experimental data gives the radiologist a fair working knowledge of the type, the amount of penetration and the dose to use on different lesions.



No. 9. Melanoma of the popliteal space. This type of tumor is refractory to radium and X-ray and should be excised by a wide margin as soon as discovered.

When any large amount of skin is involved by the new growth, broken doses of X-ray may be more desirable in order not to overstep the healing recovery time of the normal tissue. The total lethal dose may be divided into any number of treatments that might be estimated and arranged at regular intervals, cooperating as nearly as possible to the patient's locality and ability to make the necessary trips for treatment. Smaller neoplasms may be given a single lethal dose with impunity. Recurrences are promptly treated.

CONCLUSIONS

1. Skin cancers are a major problem because of their cosmetic importance and actual mortality.

2. Skin cancers may successfully be

prevented during the "precancerous" stage.

3. Early skin cancer is curable.

4. The writer admits and discusses the identity and treatment of "precancerous" lesions as being the best mode of preventing the increase of the mortality rate of skin cancer.

5. The use of X-ray and radium alone or as an adjunct to surgical procedure is advocated.

6. A treatise on skin cancer has been given with free reference to the literature.

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Pictures and graphs from the writer's practice.

DISCUSSION

J. Duffy Hancock: It is a sad commentary that over 5,000 people die each year in the United States from carcinoma of the skin. In no tissue in the body are lesions so apparent for diagnosis and so accessible for treatment. While perhaps only 50 per cent of carcinoma of the bladder or rectum are curable even when seen early at least 85 per cent of such skin lesions are. Even in late cases 30 per cent of cures are obtainable. Unwarranted delay and inadequate treatment must be blamed for these many needless deaths. While the mortality is showing a slight increase in spite of intensive educational campaign we should not be discouraged for the success of such campaign rests upon repeated repetition.

Dermatologists sometimes confuse us with their terminology. It might be simpler to consider as skin tumors, ulcerated areas that do not heal. Warts that bleed, moles that grow or change color, lumps that persist, and scars that show fissure formation.

If one will accept this classification as an indication for early adequate treatment many more cures will be obtained.

In the choice of the manner of treatment to be used there is considerable latitude permissible. While some physicians obtain good results with carbon dioxide snow, electrodesiccation, acid cauterization, etc., my own preference is for wide and delicate scalpel surgery or electrosurgery where the resulting disability and disfigurement will not be excessive. This excision type of biopsy appeals most to me. Where such cannot be done I prefer irradiation except probably in the case of melanomas.

I must admit though after seeing many of Dr. Love's excellent results that irradiation may well be the usual procedure of choice.

However, when irradiation is used I believe a biopsy should be done not only for aiding statistical studies but also for increasing the personal knowledge of the attending physician.

A. B. Loveman: One of the most important things in this discussion is the emphasis placed on pre-cancerous lesions. If these were frequently diagnosed by clinicians unquestionably the incidence of true carcinoma would be greatly diminished. Dr. Love includes seborrheic keratoses among his pre-cancerous lesions although in his discussion he does mention that they are usually benign. I do not feel that these lesions should be classified as pre-cancerous. Rarely, if ever, do they degenerate into carcinomata. It is important, however, to distinguish clinically between these growths and senile keratoses which are definitely pre-cancerous lesions. The former are greasy, resembling dirty candle grease, and usually are found on the covered surfaces of the body where the sebaceous glands are prevalent, whereas the latter are dry and scaly and are found practically always on the exposed surfaces such as the back of the hands and face.

The chancre which degenerates into a carcinoma is most unusual. Carcinomas quite often develop on tertiary syphilides but I have never known one to develop on a primary lesion. I would be interested to hear in greater detail concerning this case.

One cannot emphasize too much the importance of biopsy studies but I would add that we should not always depend entirely upon the laboratory in making our diagnosis. The clinicians should correlate their findings with the pathologist's and not expect too much of him. The microscopic diagnosis of cutaneous carcinoma, although usually a simple procedure, can at times be very difficult. I have seen static ulcers with sclerotic borders diagnosed as carcinoma. I have also seen tuberculous ulcers reported as having undergone malignant degeneration. In both instances the conditions healed completely without any treatment directed toward the carcinoma. Unquestionably, in such cases, we were dealing with a pseudo epitheliomatous hyperplasia. These cases are not the fault of the pathologist but rather due to the fact that the clinician fails to furnish him with all of the available information so that he can properly interpret his findings.

Dr. Love has been unusually fair in his discussion of therapy for carcinoma of the skin. He has not attempted to show that X-ray and radium are the only methods to be employed. Undoubtedly, X-ray and radium are to be preferred in many cases such as inoperable carcinomas, large infiltrative lesions, with oral carcinomas and many others. Personally, for

the early small carcinoma, irrespective of type, of both skin and lip, I prefer curettage followed by thorough destruction with the actual cautery. The end results in such cases are excellent; the method is inexpensive and the cosmetic results compare most favorably with X-ray and radium.

Winston U. Rutledge: The fact that there has been an increase in the percentage of mortality from all malignancies between the years 1930 and 1934 is not unexpected in view of the steady increase in the number of people reaching cancer age, but I was surprised at the increase in deaths from skin cancers occurring between 1921 and 1934. This might be partially explained by the increase in life expectancy, but because of the ease with which these lesions can be recognized and treated early plus the publicity that all malignancies have received of late, it is surprising to me that skin cancers should still be listed among the significant causes of death. Nowadays we rarely see examples of those advanced carcinomas of the skin that were relatively frequent a few years ago.

The higher proportion of skin cancers occurring in males in contrast with females is well recognized, but the statement that mouth cancers are only six times as prevalent in males as in females seems to me to be erring on the conservative side. In Wile's study of 410 cases of this type, 96.4 per cent occurred in males while in similar studies Hyndman reported 97.3 per cent and Kelly 93 per cent as occurring in men. However, the recent acquisition of the cigarette smoking habit by women may in the future go far to neutralize this discrepancy. It is interesting to note that in 1923 G. E. Brewer reported that in a large group of white women over 70 years of age, 8.04 per one hundred thousand died of cancer of the lip, while in a like number of Negro women of the same age in which pipe smoking was a common occurrence, 30.1 per one hundred thousand died of cancer of the lip.

The lack of skin malignancies in tropical regions is an interesting fact and is probably largely due to the associated increase in protective pigmentation seen in skins of the indigenous races, but the scourge of skin malignancies among the blond Britishers transplanted to the Antipodes has been commented on by many authors.

The problem of handling precancerous skin lesions is one upon which volumes have been written, and one which has not been satisfactorily settled up to the present. The term "precancerous" is based upon clinical morphology and statistical studies rather than upon cellular pathology as many of the so-

called precancerous lesions will ever remain benign, and it is impossible to foretell which ones of that group will eventually become malignant. However, because of the recognized fact that a certain percentage of such lesions will end up as malignancies, it is a safe practice to urge the removal of all such growths. This is done not only to avoid this possibility but also for cosmetic reasons as many of these lesions occur on the exposed portions of the body and produce varying degrees of disfigurement.

At this point it might be well to stress the importance of biopsy studies in connection with the removal of these border line conditions since in many cases it is impossible to distinguish clinically the benign from the malignant ones, and whereas the cosmetic end result is important in the former, in the latter it is of only secondary consideration.

This is particularly true in the case of those congenital anomalies which are commonly spoken of as nevi. In the great majority of such cases the conservative removal of such growths is followed up by no sequelae provided the patient is pleased with the resulting appearance. On the other hand such pigmented growths may represent the devastating types of malignancy, and their incomplete removal along with the proper treatment of the associated lymphatics is usually followed by a fulminating spread of the involved cells and the patient's precipitous demise.

The chromatic warning of blue-black pigmentation is not always a dependable sign in these growths as statistics show many of them to be but moderately pigmented, and here only a microscopic study of the involved tissues will disclose the true nature of the growth.

A paper of this type might be discussed indefinitely, but finally the relationship of cancer to syphilis is a most interesting one. Epitheliomas have been reported as arising at the site of preceding tertiary cutaneous syphilides, but it is only in the case of cancer of the tongue that syphilis is believed to act as a definite predisposing etiologic factor. As an example of this relationship George Belote of Ann Arbor, Michigan, recently reported a study of 92 cases of cancer of the tongue in 29.3 per cent of which the patient had a positive serology in contrast with a larger group of cancers of all other tissues in which only 7.2 per cent showed laboratory evidence of syphilis. These same relative percentages have been confirmed by other investigators. It is interesting to note in passing that it is believed by many dermatologists that the treatment of syphilitic lesions of the tongue with arsenical preparations predisposes the tissues to this type of malignant transformation.

Irvin Abill, Jr.: As the American Society for the control of cancer expands its program, we are more and more frequently being confronted by the following situation. A healthy elderly man addressed us in this manner: Doctor, I have a small lump on my face which I first noticed several weeks ago. It is not painful and it is not growing but my wife who fears that it might be cancer insists that I consult you." We are all aware of these two facts: one, that early squamous cell epitheliomas and basal cell epitheliomas are indistinguishable from other benign lesions of the skin; and two, that skin cancers which can be diagnosed clinically have already passed the stage where adequate treatment would have produced the most decisive results. And so the problem is how to handle these patients.

If he is immediately referred to a Dermatologist or Radiologist, superficial cells may be removed from the lesion with a curette, stained and studied under the microscope, and should the lesions prove to be malignant superficial roentgen therapy of proper dosage administered the entire procedure requiring less than an hour. While this is not the only method of managing these cases and certainly not the most desirable in every instance, if it is employed these three benefits are instantly enjoyed. Benefit one is that the patient is successfully controlled. He does not wander away to return months later when his small lesion has reached the ulcerating stage. Benefit two is that direct, effective treatment which should in these cases result in almost one hundred per cent cures has been applied. And benefit three, one that must always be in private practice of major importance, is that the patient has received competent medical attention with a maximum conservation of time and a minimum expenditure of funds.

Virulence of Spirochetes and Filtrable Viruses in Frozen State.—Turner and Fleming tested the virulence of five specimens of *Spirochaeta pallida* belonging to four different strains and seven specimens of *Treponema pertenue* belonging to five different strains after storage for approximately three years at a temperature of -78°C . With one exception each specimen contained actively motile spirochetes and all specimens were highly pathogenic for rabbits. Many other specimens of these spirochetes stored for shorter periods also tested with similar results. Relapsing fever spirochetes tested after storage for from six months to one year showed active motility and were virulent for mice. *Leptospira icterohaemorrhagiae* was found to be actively motile after storage for five, six and ten months.

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EDITORIALS

GOVERNOR BECKHAM

In the passing of Governor Beckham, the medical profession can join with many other groups of the citizens of Kentucky, and of our country, in sadness at the loss of a great statesman.

As a member of the Legislature, as Speaker of the House of Representatives, as Governor of the Commonwealth, and as its representative in the Senate of the United States, the Governor was always an advocate of sound public health procedures under the intelligent control of an educated and organized medical profession. It was under his leadership that the State Board of Health was entirely removed by law from party and partisan politics. Believing firmly, as he did, in the principle of local self-government, he gave his powerful support to the development of the full-time county health departments whenever the local governing authorities or the people desired to make such organization on such a basis as would develop real service in the protection of public health through the policies controlled for each county by its county board of health.

After his retirement from the Senate, Governor Beckham and Judge Elwood Hamilton became the attorneys for the State Medical Association and the State Board of Health. In these capacities, they secured decisions in the lower courts and in the Court of Appeals of permanent value both in defense of physicians unjustly accused of malpractice, and for sound public health procedures.

Governor Beckham was a trained and studious statesman, coming of a stock that had profoundly influenced the processes of government. He was familiar from youth with the intricacies and complexities of State and Federal legislation and administration. His state papers were Gladstonian in their convincing forcefulness and compelling statesmanship.

To his wife and to the people of the Commonwealth of Kentucky, the Kentucky State Medical Association extends both its profound sympathy in the loss we all feel in his passing and the pride we have in his integrity and accomplishments.

THE ENLISTMENT CAMPAIGN OF THE WOMEN'S FIELD ARMY

In a recent article on Cancer Control by Dr. Clarence C. Little, Managing Director for the American Society for the Control of Cancer, he very properly calls attention to the fact that the key man in the whole picture of cancer control is the general practitioner. His part in the early diagnosis of malignant lesions is absolutely essential for the control and cure of cancer. It is equally true that he is the key man in the enlistment campaign and educational work which is done under the auspices of the Women's Field Army of the American Society for the Control of Cancer. He is the one who has the confidence of his patients and he is the one to whom they frequently turn for advice regarding participation in this campaign. When he will consent to do so he automatically becomes a leader in the fight to control cancer.

The State Executive Committee consisting of members of the Kentucky State Medical Society have thoroughly investigated and participated in the work of the Women's Field Army as have many other physicians in the State. You can be assured that this work, largely educational, is approved by the American Medical Association, The American College of Surgeons and kindred organizations. Your support is solicited and any encouragement that you can give to this drive will be appreciated because its success will in a considerable measure depend upon your cooperation.

J. DUFFY HANCOCK, Chairman
State Executive Committee.

THE PASSING OF A GREAT INSTITUTION

The recent closure of the Herman Knapp Memorial Hospital on West 57th St. in New York, or rather its absorption by the department of Ophthalmology of Columbia University, marks the passing of one of the pioneer institutions in our country limited to the treatment of diseases of the eye.

When Doctor Herman Knapp resigned his position as Adjunct Professor of Ophthalmology in Heidelberg, Germany, in 1869 to come to America he immediately established a free clinic for treatment of

diseases of the eye, ear, nose and throat, along with a hospital on 12th Street just off Broadway, New York, under the name of New York Ophthalmic and Aural Institute. This establishment, which was supported largely by endowments founded by citizens of New York and elsewhere, was administered almost solely by Dr. Knapp. Under his guidance, his energy and initiative, and assisted by a competent medical staff, a large out patient department developed. The clinic and hospital patronage soon outgrew the capacity of the small institution on 12th Street and by 1913 it was moved to its recent large quarters on 57th Street. At this time the otolaryngological department was discontinued and the name of the institution changed to the Herman Knapp Memorial Hospital.

During 1895-1896 it was the writer's good fortune to be associated with Doctor Knapp as house surgeon, and it was presumably this which impelled the writing of this brief historic sketch.

In 1897 Doctor Arnold Knapp became associated with his father and, since his passing a few years later, the son has been the dominant figure in the conduct of the medical and more especially the surgical clinic. His finished and dexterous surgical technique and his diagnostic acumen have attracted scores of visitors interested in ophthalmology through the years, hence the Knapp clinic has endured as the mecca of students in ophthalmology for which it was known during the active years of the senior Knapp.

In the early days of special hospitals the need of closely associated departments devoted to general medicine and to the various specialties did not seem essential. However the days of clinics devoted to the treatment of any one specialty as an entity are apparently past. With the increasing recognition of the interdependence of the various departments of medicines, the improved means of diagnosis and the frequent need of consultation with other branches of medicine it is becoming more and more evident that an isolated institution limiting itself to the study of one department of medicine no longer offers the patient the highest degree of service. Presumably it was this conclusion which prompted the executives of the Knapp Memorial Hospital to join the medical centre at Columbia University

where the ophthalmic clinics and graduate courses in ophthalmology may be conducted in the Vanderbilt Clinic and the Presbyterian Hospital and where a vast material offers opportunity for consultation with all departments of medicine.

ADOLPH O. PFINGST, M.D.

PEDIATRIC POSTGRADUATE COURSE

The postgraduate course of instruction in diseases of children will be held again this year at the Children's Free Hospital, Louisville, beginning April 24th. As in the preceding years, it will be given each Wednesday for ten weeks, from 9 A.M. to 1 P.M.

As heretofore, all of the newer methods of treatment will be demonstrated on patients, and lectures will also be given on the problems of diagnosis and treatment. Any question which the attending doctors may suggest, will be discussed. A nominal charge of \$5.00 will be made for the entire course. A certificate can be had if desired.

There will be a complete outline of the course in the next issue of the JOURNAL, and those interested please write to Dr. W. W. Nicholson, Secretary, Heyburn Building, Louisville.

STATE MEETING

The State Medical Meeting this year promises to be one of our most interesting ones. While the program is not quite completed, we have five very prominent men from out of the State who will bring discussions of unusually interesting subjects. The subject matter, which will be printed shortly, promises to make the program interesting enough that no one should miss any of the sessions.

This year there will be a special effort made to have the opening discussions prepared, and we are asking the full cooperation of all who are selected for parts in this meeting.

We are particularly fortunate in having our meeting in one of the larger medical centers, and the social portion of the program is always entertaining when we meet in Lexington.

FRANK M. STITES, JR., *Chmn.*
Program Committee.

COUNTY SOCIETY REPORTS

Calloway: The call dinner meeting of the Calloway County Medical Society was held at the National Hotel on January 12, at 7 P. M. The society had as its guests the Calloway County Auxiliary to the County Medical Society. The physicians and guests present were: Dr. and Mrs. Hal E. Houston, Dr. and Mrs. C. H. Jones, Dr. and Mrs. L. D. Hale, Dr. and Mrs. A. D. Buttersworth, Dr. and Mrs. Hugh L. Houston, Dr. and Mrs. J. A. Outland, Dr. Coleman Devitt and Dr. Katherine Fisher. The members absent were as follows: P. A. Hart, J. V. Starks, E. D. Miller, Edison Fisher, Rob Mason, Ora Mason and E. W. Garrett.

The program consisted of a lecture and the showing of two reels of film concerning oxygen therapy by Mr. Ryan, representative of the Linde Air Corporation of St Louis.

The date of the next meeting was not set and the meeting was adjourned by the secretary in the absence of Dr. Buttersworth, who was called out on a call.

H. L. HOUSTON, Secretary.

Third District: The Third District Medical Society met on January 17th at the Helm Hotel in Bowling Green. Thirty-two members were present, including several local dentists.

Papers presented were: "Scrutinizing Socialized Medicine," by C. C. Turner of Glasgow, and "You Cannot Have Your Cake and Eat It," by Paul S. York of Glasgow. These papers were followed by considerable discussion by practically all the members present.

Following this, it was moved and unanimously approved that the Third District wanted to go on record as giving whole-hearted support to the principles up to the present time of the Medical Economics as proposed by the American Medical Association. It was also moved that a committee be appointed to investigate the nursing problems of the smaller hospitals in Kentucky and to do whatever could be done to remedy the situation. This was unanimously approved and a committee was appointed, consisting of C. C. Howard of Glasgow, John Blackburn of Bowling Green, and Austin Bell of Hopkinsville.

J. T. GILBERT, Secretary.

Fulton: On February 18, 1940 the Fulton County Medical Society met at Hickman. M. W. Haws, of Fulton, was elected president, and D. L. Jones, of Fulton, was elected secretary and Dr. Jones was also elected delegate to the Kentucky State Medical Association at Lexington.

Harlan: The Harlan County Medical Society held its regular monthly meeting in the Dining Room of the Lewallen Hotel on Saturday evening, December 20, 1939, at 7 o'clock. We were unable to have an outside speaker owing to bad weather conditions.

The only business transacted at this meeting was the election of officers for the Society for the ensuing year, which were as follows: M. D. Hoskins, Chevrolet, president; J. W. Nolan, Harlan, vice-president; W. E. Riley, Harlan, secretary-treasurer.

Delegates to the next State convention were Clark Bailey and W. R. Parks; alternates, C. M. Blanton and Leon Hoskins.

Membership committee, E. M. Howard, H. K. Buttermore and W. E. Riley.

The following members of the Society were present: M. D. Hoskins, Leon Hoskins, H. C. Burkhart, Clark Bailey, O. L. Cawood, C. M. Blanton, Bruce Underwood, W. E. Riley, L. O. Smith, S. H. Rowland, J. W. Nolan, R. L. Jasper, W. P. Cawood, W. R. Parks, Mose Howard.

The name of Willard Buttermore had been presented to the Secretary at a previous meeting, which was passed over to the January meeting to be voted on.

There being no further business, the Society adjourned.

W. E. RILEY, Secretary.

Bracken-Pendleton: The Bracken-Pendleton Medical Society met in regular session at Brooksville, on Thursday, January 25, 1940. Owing to the inclemency of the weather, the attendance was small.

Election of officers for the ensuing year was as follows: President, Wm. M. Townsend; vice-president, C. F. Haley; secretary-treasurer, W. A. McKenney. Delegates to the State convention will be elected at a future meeting.

W. A. McKENNEY, Secretary.

Jefferson: The committee on Necrology reports that eight representative members passed on: W. O. Bailey, Lee J. Ernstberger, Chalton G. Forsee, Siegel C. Frankel, C. H. Harris, Claude G. Hoffman, Harry J. Phillips, J. S. Bennett.

W. B. TROUTMAN, Secretary.

Walter D. Frey, M. D., announces the opening of offices in the Brown Building, 321 W. Broadway, Louisville. Practice limited to diseases of the eye. Hours 9:00-12:00, 2:00-4:00 and by appointment. Jackson 1741.

IN MEMORIAM

H. A. DAVIDSON, M. D.

Whereas:—Doctor Harry A. Davidson, on the last day of January, 1940, was by the Mercy of God, transported from a bed of hopeless illness, to his eternal home; and

Whereas:—Doctor Davidson was a life time fellow of the Jefferson County Medical Society; a past teacher of Medicine, and of Manual Training; a Louisvillian by birth and education; an active practitioner of his art; a devoted husband and father; and

Whereas:—Doctor Davidson's death entails a great loss upon the profession, upon the bereaved family and upon this Society; therefore be it,

Resolved:—That this Society utter resolutions of regret upon its own loss; and of sympathy to the devoted family and friends; also that a copy of these resolutions be spread upon the minutes of this society and that a copy be handed the bereaved family and that a copy be published.

Behold a flower fashioned and full grown
Amidst the cultured gardens of our home.
Its fragrance matched the richness of the loam
While from the bud it waxed until full blown.

An honored teacher, he was widely known,
And taught beneath the Aesculapian dome
Where he himself in youth was wont to roam
In search of truths which knowledge there had sown.

A flowering rose upon Life's rugged wall!
A zealot of the Hippocratic band!
He cheered the sick and eased the suffering man!

So shall we miss exemplar for us all,
So shall we miss fraternal clasp of hand;
And Sorrow lose a checkmate to its plan.

Octavus Dulaney,
Clyde McNeill,
R. A. Bate, Chairman.

NEWS ITEMS

ANNUAL MEETING OF AMERICAN ASSOCIATION FOR THE STUDY OF GOITER

The American Association for the Study of Goiter will hold its next annual meeting at Rochester, April 15-17 and the program will consist of papers dealing with goiter and other diseases of the thyroid gland. Dry clinics and operative clinics will be conducted by the Staff of the Mayo Clinic.

WILLIAM DAVID HAGGARD, M. D.

Doctor William David Haggard, internationally famed surgeon and one of Nashville's most distinguished citizens, died unexpectedly early Sunday, January 25th of a heart attack at Palm Beach, Florida, where he had gone for the season. He was 67 years old.

Dr. Haggard had been staying at the Breakers Hotel with a party of Nashville friends with whom he dined Saturday night. He did not join them at breakfast. At noon they entered his room to find him dead in bed. An attendant physician estimated he had died in his sleep about 7 or 8 o'clock Sunday morning.

ANNOUNCEMENT OF VAN METER PRIZE AWARD

The American Association for the Study of Goiter again offer the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association which will be held at Rochester, Minnesota on April 15th, 16th and 17th, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten double spaced copy sent to the Corresponding Secretary, Dr. W. Blair Mosser, 133 Biddle Street, Kane, Pennsylvania not later than March 18th.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award essay by the author if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association.

Miss Dorothy West, Secretary to Dr. William Brown, Lexington, at the request of Dr. Brown, wishes to pass the following information to our readers:

"About two months ago, while Dr. Brown was out of the City, I ordered from a Mr. Ross, who supposedly was a representative of Paramount Uniform Company, Indianapolis, Indiana, some uniforms for the office. I paid Mr. Ross a small deposit and was to send the balance within the next thirty days. After four weeks had passed and the order had not been received, I wrote the company regarding the matter. Receiving no reply from them in two weeks time I wrote to the Board of Commerce

of Indianapolis inquiring if there was such a company in their city. I received a reply from them this morning which is as follows:

This is the reply to your inquiry on the Paramount Uniform Company, 1238 North Meridian street, this city. We are unable to locate this company. Our city directory does not disclose a number 1238 North Meridian Street, and the company has no utility service. Our established firms engaged in the manufacture and distribution of uniforms have never heard of this company. We find that our Better Business Bureau has received two letters similar to yours and it is our understanding that the letters do not indicate that money was paid with the order. We note from your letter that you made a small deposit when you placed your order. We suggest that you address a letter to the Better Business Bureau, 711 Majestic Building, this city, for further information on this company."

BOOK REVIEWS

CANCER OF THE COLON AND RECTUM, ITS DIAGNOSIS AND TREATMENT, by Fred W. Rankin, B.A., M.A., M.D., F.A.C.S., Surgeon, St. Joseph's and Good Samaritan Hospitals, Lexington, Kentucky, and A. Stephens Graham, M.D., M.S. (in Surgery), F.A.C.S., Surgeon, Stuart Circle Hospital, Richmond, Virginia, Assistant Professor of Surgery, Medical College of Virginia. Charles C. Thomas, Publishers, 220 E. Monroe St., Springfield, Illinois. Price, \$5.50. Sent on approval.

The prime purpose of this book is to present that progress in diagnosis and in practical offensive maneuvers against cancer of the large bowel which is one of the outstanding surgical accomplishments of the past quarter century. The contents therefore furnish sound, constructive, and modern thought on cancer therapy. Descriptions are lucid. Suggestions are timely.

The most efficient methods of diagnosis, the more meticulous cooperative preparatory efforts, the application of special surgical maneuvers, are given plainly, clearly, and usably.

The authors have felt it important, too, to point out why certain procedures and practices, given undue prominence in former years, were abandoned.

Included are: The senior author's technic relating to the accomplishments of the obstructive resection of cancer of the middle and left colon. The operative maneuver in accomplishing this type of extirpative procedure by the complimentary cecostomy. The one-stage abdominoperineal resection of Miles, employing the

Cope clamp. The graded procedure of Lockhart-Mummery, colostomy, and posterior excision. Ileostomy, cecostomy, anastomosis, enterostomy, colostomy, ileocolostomy, colocostomy, ileosigmoidostomy, are given in detail, with ample illustrative materials.

A chapter by Fred M. Hodges, M.D., on radiotherapy of carcinoma of the rectum includes those studies forward which have been made in the technic of the roentgen-ray. The advantages and disadvantages of radiotherapy are discussed.

Photomicrographs, illustrating the four grades of Broders' index of malignancy, will influence the surgeon in selecting the type of operation for individual cases. The careful study of statistical data included represents the ultimate end results by the different maneuvers, and in the hands of both American and British surgeons.

This sound and practical volume will create constructive thought and criticism. It supplies most modern and helpful information.

DISEASES OF THE NOSE AND THROAT, by Charles J. Imperatori, M.D., F.A.C.S., Professor of Otolaryngology, New York Polyclinic Medical School and Hospital, Formerly Professor of Clinical Otolaryngology, New York Post Graduate Medical School, Columbia University, etc., and Herman J. Burman, M.D., F.A.C.S., Adjunct Professor of Otolaryngology, New York Polyclinic Medical School and Hospital, Formerly Assistant Professor of Clinical Otolaryngology, New York Post-Graduate Medical School. 480 Illustrations, Second Edition Revised. J. B. Lippincott Company, Philadelphia, London, Montreal, Publishers. Price, \$7.00.

This book is of great value not only to the specialist but the medical student and general practitioner. The present arrangement of the material is of special interest and value as the symptoms, diagnosis and treatment are considered first and the pathology and causation of the disease under consideration are placed at the end of each discussion.

The text is complete, main outline form in order to make the book as a reference easier.

The author has gone into minute detail of office treatment of cases. The illustrations are original and complete.

MEDICAL STATE BOARD EXAMINATIONS, Topical Summaries and Answers, An Organized Review of Actual Questions Given in

Medical Licensing Examinations Throughout the United States, Compiled by Harold Rypins, A.B., M.D., F.A.C.P., Secretary New York State Board of Medical Examiners, Member National Board of Medical Examiners, Commission on Graduate Medical Education, etc. Fourth Edition, Revised, J. B. Lippincott Company, Publishers, Philadelphia, London, Montreal. Price, \$4.50.

This compilation is based on fifteen years' experience as secretary of the New York State Board of Medical Examiners and in the office the writer has had intimate contact not only with medical schools and boards of medical examiners throughout the country. It is a very valuable book for medical students, not only for giving them a comprehensive list of questions, but for the complete explanation why such licensing procedures are necessary.

DISEASES OF THE FOOT. By Emil D. W. Hauser, M.S., M.D., Assistant Professor of Bone and Joint Surgery, Northwestern University Medical School, Attending Orthopedic Surgeon, Passavant Memorial Hospital, Chicago. With a Foreword by Sumner L. Koch, M.D. 472 pages with 263 illustrations on 172 figures, some in colors. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$6.00 net.

The author has written this because he as well as the medical profession realize the urgent need of the profession to have an adequate knowledge of the foot to combat the evil and vicious propaganda of quack foot doctors.

Dr. Hauser has brought a new, a fresh, approach to the subject. He never leaves you in doubt. He covers foot diseases in infants, children, adolescents, men and women. He guides you specifically in the treatment of such common, and important, conditions as athlete's foot, ingrown toenails, corns, calluses, etc. There is an unusually fine chapter on Infections of the foot. Of particular clinical value is the great attention given to manipulative and functional therapy. You are told how to strap, to bandage, apply Unna paste boot, use injection treatments, X-ray, institute surgical procedures and prescribe corrective shoes, etc. There are chapters on care of feet in diabetes, vascular disease, during pregnancy, and in illness. The discussion of Flatfoot is one of the most helpful and most extensive in the literature, covering 48 pages, and including the newest treatments as well as the important new physiologic facts.

KENTUCKY MEDICAL JOURNAL

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PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

THE TREATMENT OF VARICOSE VEINS IN THE LOWER EXTREMITY

WOOLFOLK BARROW, M.D.

Lexington

The diagnosis of varicose veins is usually not difficult. They can almost always be seen readily. There are, however, a certain number of patients with edema or swelling of the legs in whom the varices can only be detected by palpation. In edematous legs varicose veins may occur as soft tortuous channels in the surrounding edematous tissue. There is a real danger, however, that symptoms referable to some other disease may be attributed to varicose veins which the patient may also happen to have. Varicose veins practically never produce symptoms above the knee and, unless complications occur, those below the knee are usually relatively mild, such as easy fatiguability, heaviness, swelling and dull pain. These symptoms are not uncommon with pronated arches, hypertrophic arthritis, and early peripheral vascular insufficiency. The presence or absence of such associated lesions should be determined, for the most perfect obliteration of varices will not relieve, nor please, a patient whose symptoms are referable to some other unrelated disease.

Varicose veins are progressive in nature and tend to become more severe with the passage of time as well as to give rise to complications, such as thrombophlebitis, hemorrhage and ulceration. Matyas¹ found postoperative phlebitis to be six times as frequent in patients with varicose veins as in patients with normal veins. A thrombophlebitis, even in superficial veins, is sometimes followed by a fatal pulmonary embolus.^{2 3 4 5} Traumatic rupture of a varix, though fortunately rare, may be followed by profuse and dangerous hemorrhage. Ulceration, on the other hand, had occurred in 31% of our patients by the time they came for treatment. Varicose ulceration besides being painful indicates an advanced stage of the disease, which, in varicose veins, just as in malignancy, is associated with a poorer prognosis.

Varicose ulceration also occasionally serves as a portal of entry for serious

sepsis in the form of lymphangitis and occasionally septicemia.

The history of the treatment of varicose veins is of some interest for the problem is a difficult one and not yet completely solved. Hippocrates is said to have advocated free incision into the overlying skin, perhaps trying to get rid of harmful humors, or perhaps hoping that cicatrization would obliterate the varix. He forbade incision into the vein, for reasons which anyone can understand who has seen the hemorrhage from traumatic rupture of a varix. Celsus in the First Century, A. D., went further, and recommended cautery incision and avulsion of the diseased veins. Aëtius in the Sixth Century and Paulus Aeginata in the Seventh Century, A. D., sectioned the saphenous vein and observed that there were fewer collaterals in the thigh, so that section of the vein in the thigh seemed preferable to section in the leg.⁶ In 1916 Dr. John Homans⁷ showed that the most effective method to prevent the establishment of harmful collateral circulation was ligation of the long saphenous vein at the sapheno-femoral junction. But purely surgical treatment even when such extensive procedures as "stripping" the entire long saphenous vein or circular incision of the leg as proposed by Schede was not uniformly successful and was inevitably associated with prolonged disability.^{8 9}

Soon after the development of the hypodermic needle it was noted that the injection of corrosive sublimate in the treatment of syphilis resulted in the obliteration of the lumen of the vein into which it had been injected. Similar injections were made into varicose veins in an attempt to obliterate their lumen, but the solutions used were caustic and their injection painful and not infrequently followed by complications, so that the injection treatment of varicose veins was abandoned until 1911, when Professor P. Linser claimed astonishing results by the intravenous injection of much milder solutions. This method of treatment was immediately accepted with enthusiasm. This enthusiasm, however, was soon dampened by universal evidence of recurrence following injection alone. Nicholson¹⁰ found some evidence of recurrence in 98% of his patients followed for one year or more. Faxon¹¹ followed over three hundred patients for six

months after the completion of their injection treatment and found recurrence in 75%. Indeed 25% of these patients had more severe varicose veins than they had had before beginning treatment.

In 1929 Moschowitz¹² of Vienna, suggested surgical division of any incompetent superficial venous trunk at the communication with the deep veins of the leg in an endeavor to eliminate increased intravenous pressure and prevent recurrence after treatment by injection. In other words to use a combination of surgery and injection, both of which are, at the present time, considered essential in the treatment of the patient with varicose veins. (Fig. I).

In some patients with scattered superficial veins, there may not be an incompetent venous trunk communicating be-

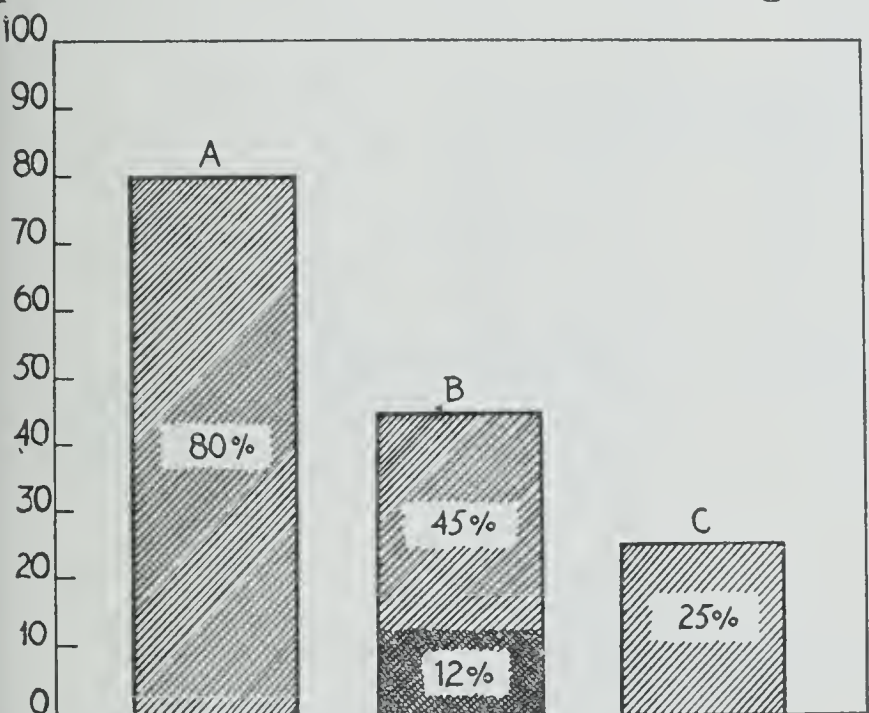


Figure 1

The percentage of satisfactory end-results in the treatment of varices of the long saphenous vein—

- a) Ligation and injection
- b) Trendelenburg operation (Ligation alone)
- c) Injection alone

tween deep and superficial veins of the legs and sclerosis of superficial veins by injection alone will be sufficient. The number of these patients, however, is small and their complaints are usually cosmetic in nature.

In over eighty-five per cent of the patients with varicose veins we have observed, now well over thirteen hundred in number, there have been one or more incompetent venous trunks, which have, in our opinion, demanded surgery.

Anatomically there are four possible communications between the deep and superficial veins of the leg which may become incompetent; by way of the long saphenous into the femoral vein; by way

of a vein communicating between deep and superficial venous systems in the thigh; by way of the short saphenous vein entering the popliteal; or by way of veins communicating between deep and superficial venous systems in the leg which are usually multiple. (Fig. II).

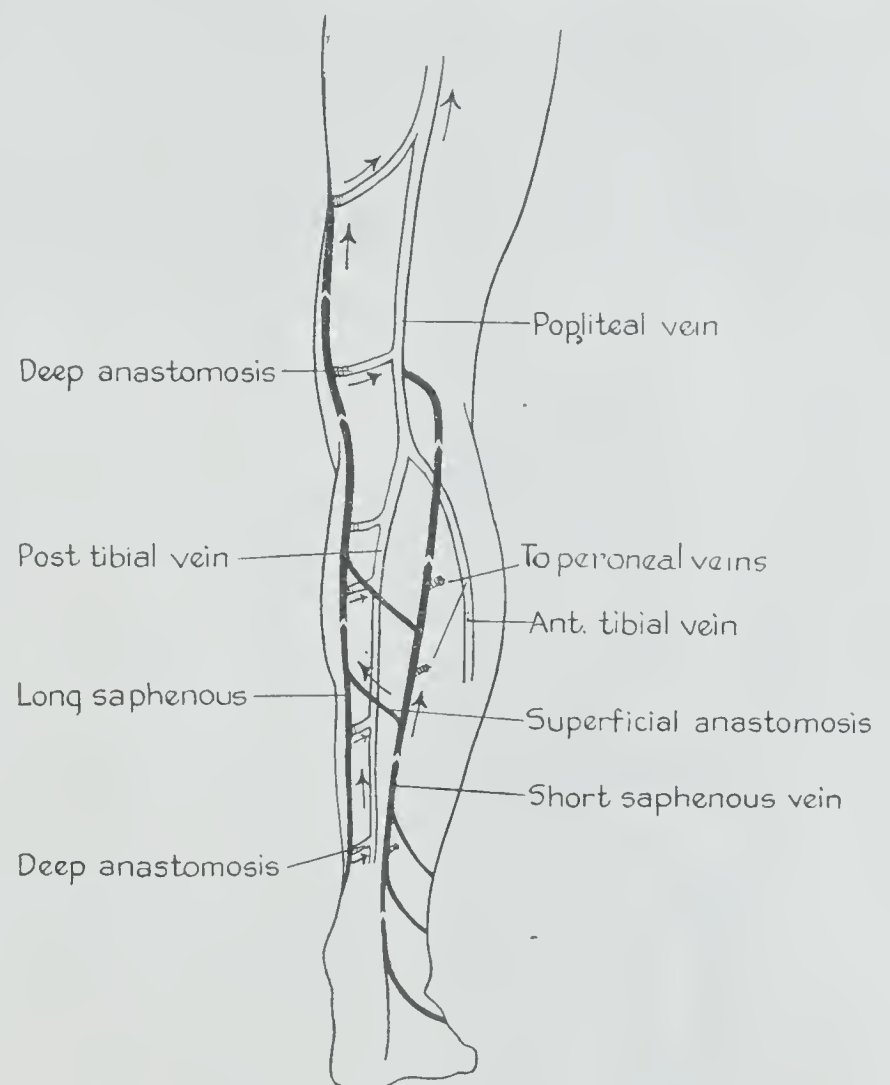


Figure 2

The anatomy of the superficial veins of the legs and normal direction of blood flow.

And, to us, the diagnosis “varicose veins” without mention of the group of veins involved is in our opinion as inadequate as the diagnosis of “heart disease” is to the internist. And just as the internist insists upon a complete anatomic and functional diagnosis of heart disease: viz. “Rheumatic Heart Disease with Mitral Stenosis and Congestive Failure,” so should surgeons insist upon a descriptive diagnosis for the state of the veins: viz. “Varicose veins of the left long saphenous vein with positive Trendelenburg test and edema.” For only in this way can one gain an accurate knowledge of the extent, prognosis and treatment indicated for the individual patient.

If such an incompetent venous trunk should exist, it should be identified and ligated before treatment by injection is begun for otherwise the increased intraluminal pressure which was associated with the development of varices in the first place, has been found to cause recurrence of varices and return symptoms. In our experience unless retrograde flow

of blood from deep to superficial veins is prevented by surgical ligation of the incompetent venous trunk and its possible collaterals, which means ligation at the junction of superficial and deep veins, patients with varicose veins tend to have early return of their varices either through recanalization of sclerosed veins or the formation of new ones.¹³

The condition of the valves of each of these groups of superficial veins can be determined by a modification of the Trendelenburg¹⁴ test. In this test the

patient is requested to lie on his back on an examining table. After the blood is emptied from superficial varices by elevation and gentle stroking toward the heart, three tourniquets are applied snugly to the leg—one just below the knee, one just above the knee, and one just below the sapheno-femoral junction. Filling of superficial varices, with all three tourniquets in place, when the patient stands can only occur through incompetent veins communicating between deep and superficial venous systems in the leg. They are usually multiple. (Fig. III). If superficial varices fill after the removal of the distal tourniquet, filling has occurred by way of the short saphenous veins, (Fig. IV) the valves of which

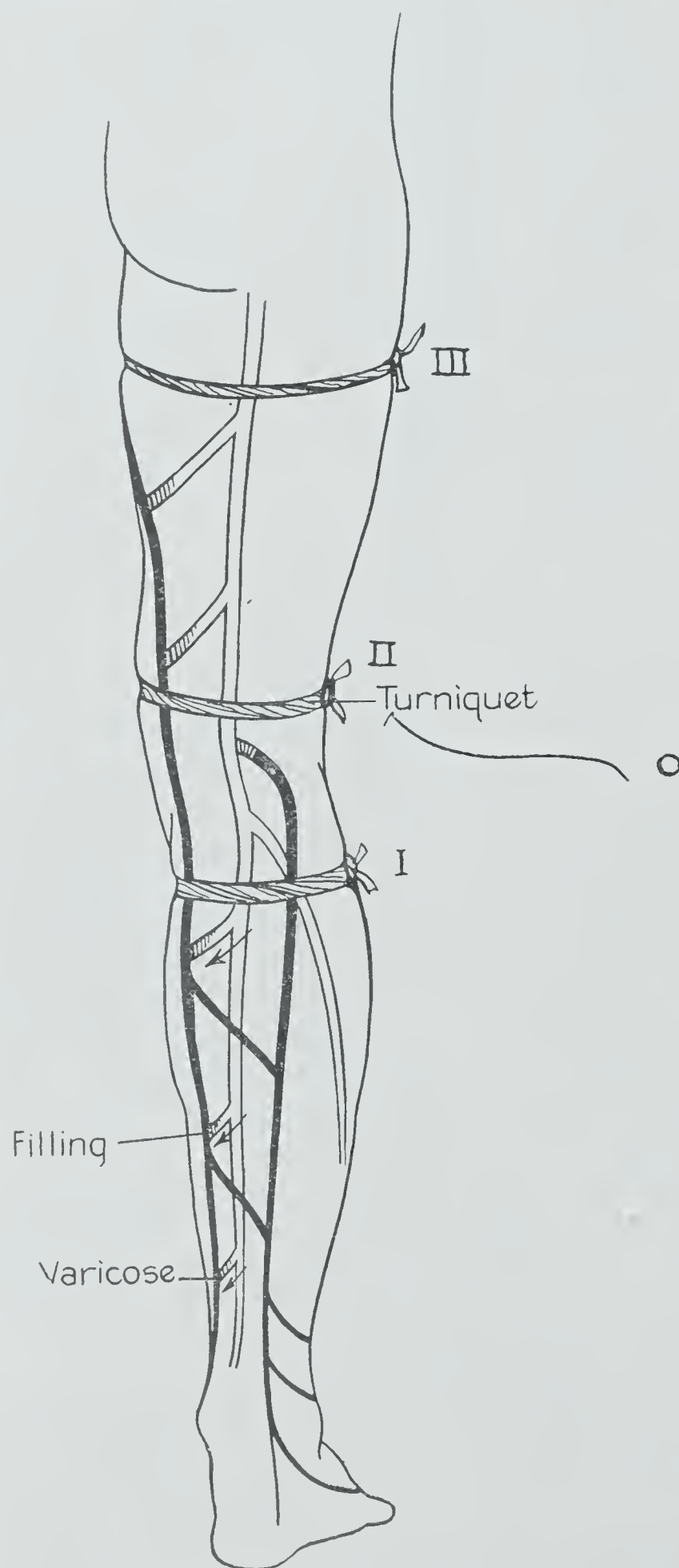


Figure 3

Examination of Patient I.

All the tourniquets in place. Filling of superficial varices occurs thru incompetent perforator of the lower leg.

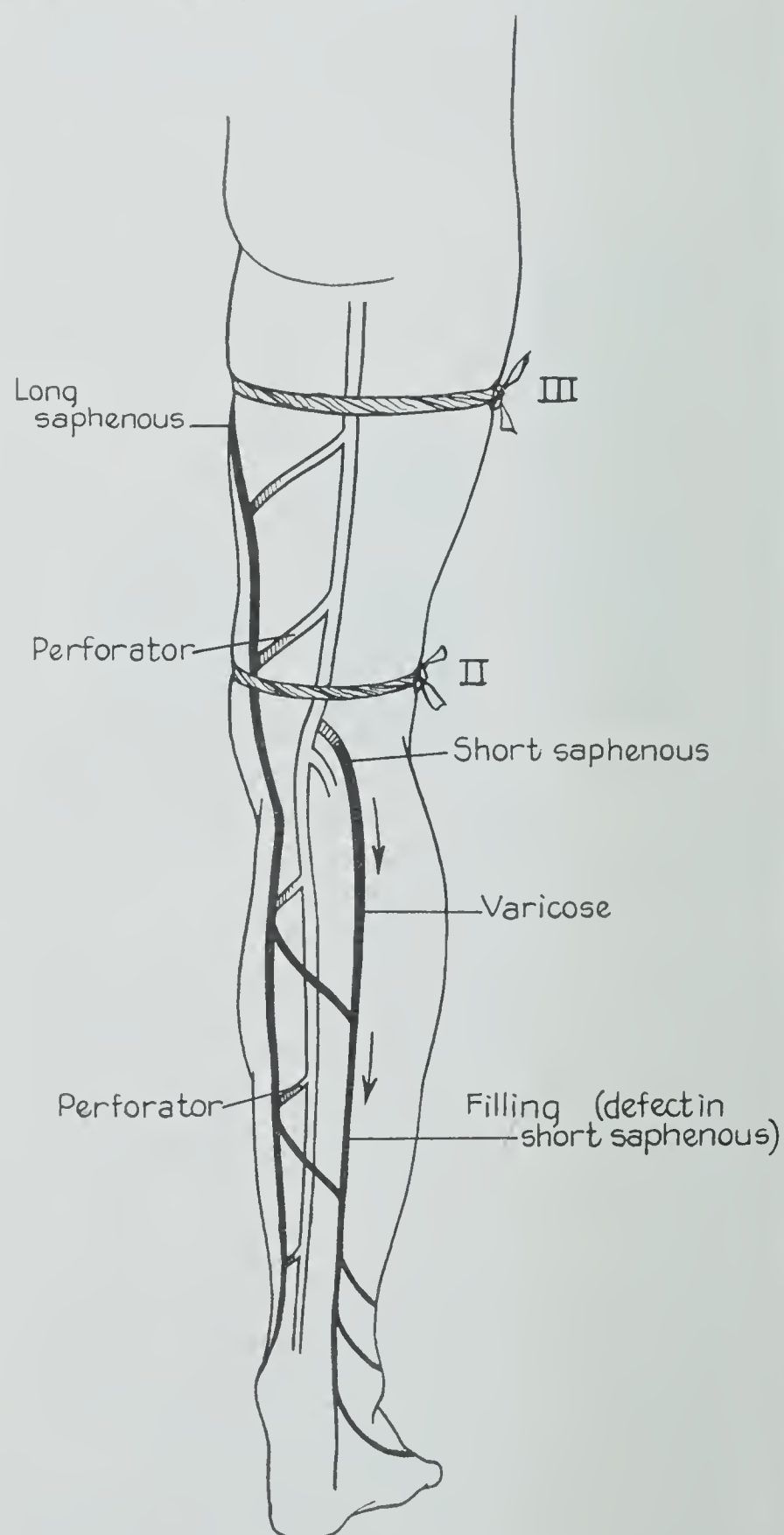


Figure 4

Examination of Patient II.

Two tourniquets in place. Filling of superficial varices occurs thru incompetence of the short saphenous vein.

are 'incompetent. Filling following removal of the second tourniquet occurs by way of an incompetent vein communicating between deep and superficial veins in the thigh. (Fig. V). Superficial varices which fill with abnormal rapidity following removal of all three tourniquets are associated with incompetence of the long saphenous vein. (Fig. VI).

Incompetence of the long saphenous vein either alone or combined with another group was found in over 80% of

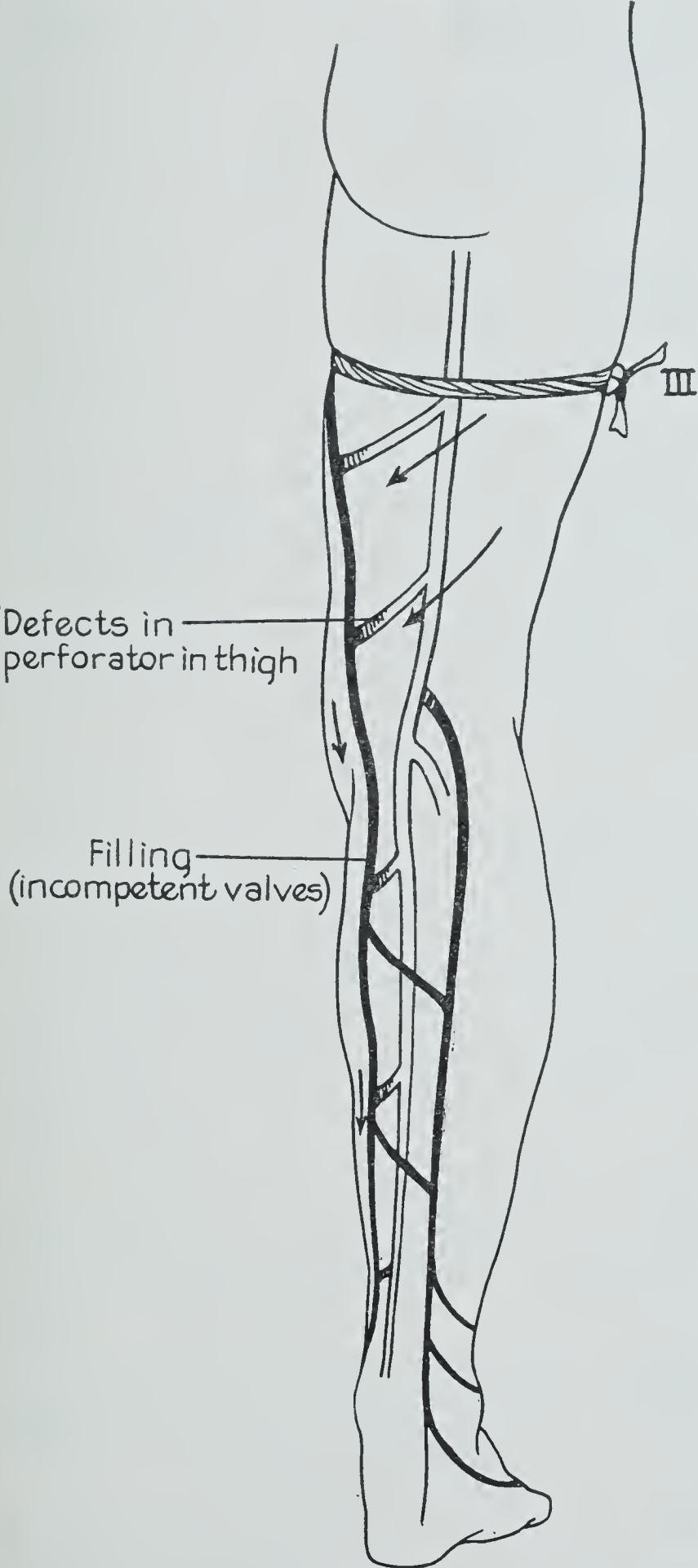


Figure 5

Examination of Patient III.

One tourniquet in place. Filling of superficial varices occurs thru an incompetent perforator in the thigh.

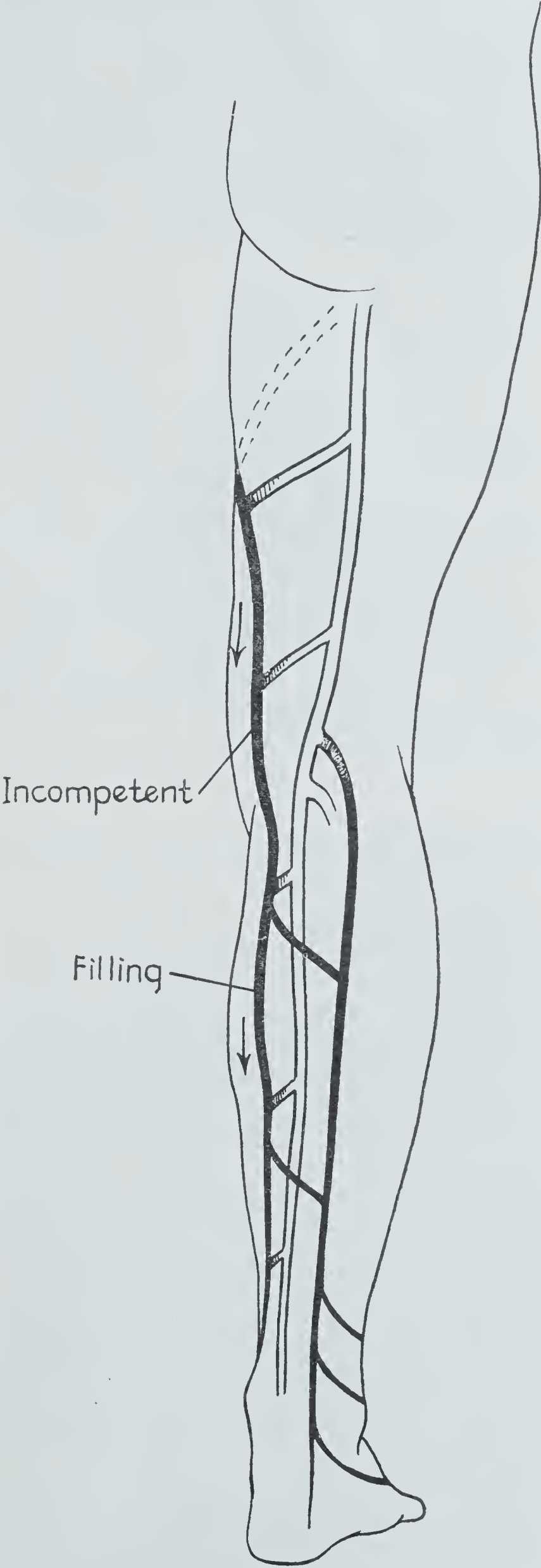


Figure 6

Examination of Patient IV.

All tourniquets removed. Filling of superficial varices occurs thru incompetence of the long saphenous vein.

the more than 1,300 patients examined. It should be ligated in the groin at its junction with the femoral vein. Particular attention should be paid to small tributary veins in this region, which if unligated may provide a pathway for collateral circulation around the point of ligation with re-establishment of retrograde flow and recurrence of varices.¹³ (Fig. VII).

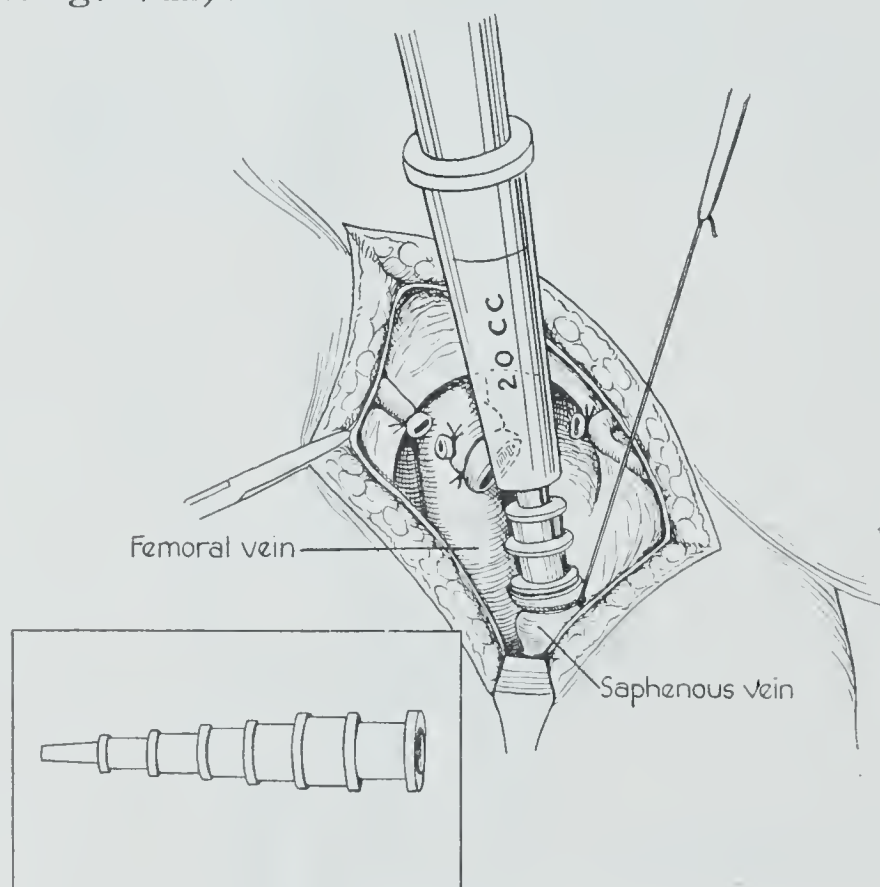


Figure 7
The technique of ligation of the long saphenous vein.

Retrograde injection at the time of ligation of the long saphenous vein reduced the average number of necessary postoperative visits for injection from 6.8 to 2.6. Treatment of patients with varicose veins of the long saphenous system by ligation and injection followed for an average of 2.2 years resulted in satisfactory end results in 80%.

Ligation of communicating veins in the thigh, the exact level of which has been marked pre-operatively with silver nitrate, is readily accomplished by an incision directly over it. Incompetent communicating veins in the thigh are rarely primarily responsible for the development of superficial varices, but may be an important cause of recurrence following high ligation.

Ligation of the short saphenous is readily accomplished through a transverse incision one finger's breadth proximal to the popliteal crease. Injection of the distal stump of the short saphenous vein may be followed by deep thrombophlebitis, and in our opinion should not be done.

The short saphenous was found incompetent alone in 2% of our patients and in combination with an incompetent long saphenous vein in an additional 6%. In other words in 8% of our patients ligation of the short saphenous vein was indicated. Recurrence of varicose veins of the short saphenous vein treated in this way has been extremely rare.

Incompetence of veins communicating between deep and superficial veins in the lower leg was seen in 6% of our patients. It was associated with previous deep thrombophlebitis in 94% of our patients. It may occur in one or more of three groups of veins, anterior, lateral, or medial.¹⁵ If incompetent, these veins should be ligated from the underneath side of the fascia as they perforate it. The prognosis of this group of patients is not as satisfactory as in other groups, but ligation plus postoperative injection seems to have given better results than any other procedure. We do not believe any surgery should be undertaken in a patient who is not able to be ambulatory, nor in the presence of active inflammation in the region of the incision, nor in the presence of varicose ulceration unless two consecutive cultures two days apart have shown the absence of hemolytic streptococci. Surgery of the lower leg should not be undertaken until all ulceration has been healed for six weeks or more. Although the surgical aspect of treatment of varicose veins has been emphasized almost to the exclusion of the "injection" treatment, this has been done only because it is less widely practiced. In practice, we regard the postoperative obliteration of dilated veins by the intravenous injection of sclerosing solutions as an important part of the treatment of the patient with varicose veins and should not, in our opinion, be omitted. In the first place, unless the dilated veins are obliterated, the patient may continue to complain of heaviness and easy fatiguability in the affected limb. In the second place, it has been our experience that increased intravenous pressure with associated symptoms and complications tends to recur more frequently in patients who fail to return for an adequate postoperative course of injections. We have been accustomed to use quinine urethane in the earlier part of this series and sodium morrhuate in the latter. Although some patients are apparently sensitive to each

of these, both have been satisfactory in the great majority of patients, as are, no doubt, other solutions with which we have had no experience. Before beginning intensive treatment, every patient has been tested for sensitivity by the injection of a small test dose. Injections have usually been given at intervals of a week apart, never more frequently than once every two days in alternate legs, for it is often impossible to determine the extent of the reaction in a shorter time. Tourniquets or other devices to keep the solutions localized have not been used. We have rarely injected more than four varices at one office visit, nor used more than a total of two cubic centimeters of quinine urethane or of ten per cent sodium morrhuate at one visit.

A paper on the treatment of varicose veins would hardly be complete without mention of varicose ulceration. Varicose ulceration will, in most instances, become relieved as soon as the varices are obliterated. There are, however, a certain number of patients in whom recurrent or long standing ulceration has produced such scarring or damage to lymphatics that healing is slow. In those patients excision of the ulcer, including the underlying fascia, followed by immediate or delayed grafting has been satisfactory.

CONCLUSIONS

1. Although sporadic varicose veins of the lower leg do occur, in most instances varicose veins of the lower leg are associated with incompetence of the valves of one of the large venous trunks of the leg.

2. Treatment has been facilitated by exact determination of the venous trunk or trunks at fault, recurrence minimized by surgical interruption of the continuity of this trunk.

3. The group of veins or venous trunk at fault has been, in our experience, most easily determined by modification of the Trendelenburg test which is described in detail.

4. The combination of surgery plus injection has, in our hands, given results superior to either one alone.

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ACUTE LARYNGOTRACHEOBRONCHITIS IN CHILDREN

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Acute laryngotracheobronchitis is a disease which probably has been prevalent but not described as such until the last few years. It has been diagnosed in Kentucky fairly frequently within the last three or four years. We have seen many more cases within the last year than in former years. Whether this is due to the fact that we have been unable to recognize it as a definite entity or whether it has been occurring more frequently is a question for speculation. I will present four typical cases of this condition from a series of cases. These cases carry the same mortality as the general group; therefore, they can be presented for the group. The reason for selecting these particular cases is that they illustrate more clearly the condition known as laryngotracheobronchitis.

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Laryngotracheobronchitis is an acute infectious disease of the respiratory tract which is not diphtherial. It is characterized by acute inflammation of the mucous membranes of the trachea and bronchi. There is present an exudate which is sticky and at times gummy. This exudate causes mechanical obstruction of the respiratory tract. At times it may cause emphysema or atelectasis. This condition was first described by Bland in 1823. But our present accurate knowledge of this disease is based on the description by Jackson in 1921. He later, in 1936, gave a very concise picture of the condition. Since that time numerous papers have appeared in the literature describing this condition, among which is a very excellent paper by Brennemann and his colleagues published in 1938.

INCIDENCE AND EPIDEMIOLOGY

The disease occurs most commonly in, but it is not exclusively limited to children. Brennemann reports 30 of their 45 cases occurring in the first two years of life. It will be impossible to give the actual incidence of this disease because most of it is recorded under pneumonia or bronchopneumonia. The disease which preceded the pneumonia was, in most instances, either unrecognized or unreported. Jackson has shown that the physical findings of pneumonia may be due to areas of atelectasis. It has followed epidemics and probably occurs more commonly during epidemics of influenza. It is not a very rare disease. Jackson has reported up to 1936 more than 100 cases of the disease. Some claim that it occurs more frequently in males than females.

ETIOLOGY

It is unquestionably an infective disease. All common organisms of the respiratory tract have been found with no particular predominating organism. Jackson states that in their experience streptococci have been present in practically all cases but no particular type of streptococcus has been constant. Influenza bacilli have been found by them in about five per cent of their cases. Where blood stream infections have been reported practically universally the streptococcus has been the organism found.

The experience of Jackson has been that it occurs in all ages when a person is susceptible to respiratory diseases. It is true that the most cases are found in children under two years of age and that

the mortality is higher in this age group. It also seems to occur more commonly in children who have not had previous respiratory infections. Naturally, the smaller bronchi of children are more likely to become obstructed with the gummy, sticky secretion than the larger bronchi of older people. It is also true that children are unable to bring up this material and expectorate it as easily as older people. Jackson thinks that one of the most important predisposing factors is the hot, dry dwellings occupied by the people of the temperate zones. He also calls our attention to the fact that this disease as we know it does not occur in torrid zones where the humidity is high.

PATHOLOGY

The bronchi are as described by Jackson: "The mucosa of the larynx is a deep red, slightly less deep on the cords. The subglottic tissues on each side extend medial, showing as mounding, intensely red, semi-elliptic folds, one below each cord. These swellings are peculiar to children and are due to the loose connective tissue in the conus elasticus in childhood. Small patches of secretion may be seen but they can be wiped away cleanly, leaving no eroded or bleeding surface; there is no ulceration, no membrane comparable to that in diphtheria. The living pathologic condition of the bronchi is interesting and important. The progressive appearances were described twenty-two years ago as follows: "The tracheal mucosa is reddened. Its color deepens. Swelling of the mucosa begins. Later on exudate forms, at first serous, then mucoid, then purulent and finally thick, tenacious and exceedingly difficult of expectoration even by the robust adult. In infants who are naturally almost incapable of expectoration, death may occur from inability to rid the air passages of secretion (drowning of the patient in his own secretions). The bronchi, or even the trachea itself may be occluded by mucosal swelling, or edema, actually causing death by the stenosis. Both these conditions are independent of bronchopneumonia, which may or may not exist." Subsequent observations have fully confirmed these observations. As in other conditions the rings, so characteristic of the normal, are obliterated by swelling. Some orifices are noted as filled with pus, and absence of bubbling indicates no passage of air. Still other orifices are

found obstructed with straw-colored or brownish crusts. These crusts have the appearance of dried serum with little admixture of pus. It is true that thick pus too viscid to run down the glass walls of the collector is seen in various bronchial diseases, but no such dry gumlike and crusted secretion as that previously described is ordinarily seen in any disease other than the malady under consideration. In rare instances an outstanding feature of the endobronchial picture is the dry, sometimes even glazed appearance of the tracheobronchial mucosa.

SYMPTOMS

The clinical picture is fairly characteristic. However, the physical findings may vary. The onset is usually acute, following an ordinary cold or upper respiratory infection. It usually begins with a cough which may be croupy with a definite increase in the embarrassment of both the inspiratory and the expiratory mechanisms. In some instances dyspnea may be present with or without elevation of temperature. The usual range of temperature, if present, will be from 101°-103° F. There is an increase in pulse rate. There is usually moderate to severe restlessness. This will depend entirely on the amount of obstruction present. Physical findings of the chest will depend entirely on how much bronchial obstruction is present. At times the bronchial tree may become clear and the patient's respiratory distress may completely disappear with the physical findings of the chest practically normal. Then again on examination there may be numerous atelectatic areas, and at other points evidence of emphysema.

As the obstruction increases the patient becomes more restless and irritable and quite apprehensive. The patient may become exhausted and respiratory decompensation reached with a fatal termination. At times atelectasis may cause a shift of the mediastinal structures. For this reason it is very important to keep up with the condition of the chest. The shift of the heart is more noticeable if the atelectasis is on the right side with the heart shifting to the right.

If the condition does not terminate fatally, after a stormy course, the edema subsides, the secretions decrease and become loosened and there is recovery.

PROGNOSIS

Jackson gave a mortality average of

70 per cent. He did not, however, give the average from his own clinic. Reports from other clinics show a varying mortality. Brennemann, et al., gave a mortality of their cases over a period of ten years. The first nine years they had a mortality of 50 per cent. The tenth year they had a mortality of 25 per cent. They attribute this reduction in mortality to a better knowledge of the pathology of the disease and to the fact that they were better equipped to treat the disease during this period. It certainly is important that one should recognize and be prepared to take care of the disease when it does occur. Otherwise, the mortality may be 100 per cent.

TREATMENT

The treatment of a patient in this condition depends entirely on the cooperation of the medical man or the pediatricist and the one responsible for keeping the bronchial tree open, who is usually the bronchoscopist. The life of the child may depend entirely on the medical management after the tree is properly cleared. But it is important to have perfect understanding between the person who is responsible for the management of the respiratory obstruction and the person responsible for the general management of the patient.

It is best to have the patient placed in a room with the temperature of approximately 70° F. with an extremely high humidity, reaching that of saturation. This can be done by using a steam kettle, or if one is fortunate enough to have a steam room this may be used.

Rest should be maintained without causing any deleterious effect on the cough reflex. It is best that the patient not be used as a clinical study for students or internes, and that as little handling as possible be done. The routine nursing care which sometimes fatigues a patient should be omitted. Even in some instances the bath may be omitted. The medical supervisor should state what limits should be put on the number of examinations.

The question of drugs has been a controversial subject to the men who have had extensive experience in handling this disease. Some feel that no drugs should be given at all. The general opinion is that the use of atropine and the belladonna group is definitely contra-indicated. The Jacksons' experience justifies this

statement. In their opinion atropine thickens the bronchial secretions and makes it more difficult to expel the material. They also feel that opium paralyzes the cough reflex and should not be used. In our own experience we feel that the use of some of the barbiturates is much safer and can be used to produce rest rather than the opiates.

It is very important to combat dehydration. If the nurse cannot give enough fluids by mouth to prevent dehydration, it is best to give the fluids by other methods. The method of choice is the method which will least irritate the patient.

Sulfanilamide and sulfapyridine have been used in this condition. Sulfapyridine has been used only very recently and information regarding its beneficial results will be more evident after another winter than at the present time. If one finds any of the pneumococci as a predominating or causative organism, sulfapyridine is indicated. In the case of sulfanilamide we have found very little benefit derived from its use and the patient has unquestionably seemed more toxic during the period of administration. Unless organisms are found in the respiratory tree that are amenable to treatment with sulfanilamide we think it best to omit it. A conservative statement to make, we think, is that if bacteriological studies do not show specific predominating organisms which may be combatted by sulfanilamide or sulfapyridine, it is best to omit these drugs in the treatment.

Since we have no definite drug to combat infections from streptococci as we have antitoxin for diphtheria, transfusions have proved to be the anchor sheet for this disease. It is probably one of the best and most powerful remedies we have at our disposal. Transfusion should be done by a skilled technician with the least amount of distress possible.

The bronchoscopist after examining the tracheobronchial tree will determine the necessity for tracheotomy. Through the tracheotomy wound if necessary, he can extract the dry crusts that may at times form and which cannot be aspirated through the catheter. Ordinarily, the bronchial tree can be cleared by a suction pump attached to a small rubber catheter which is introduced, as often as is necessary, through the tracheotomy tube. It is very important to use a skilled nurse with

these patients at all times while the tracheotomy tube is in place. Her training will make her capable of determining when to interfere with suction and to report alarming symptoms to the physician in charge. At times it will be necessary to inject through the tracheotomy tube normal saline to moisten the secretion. After the tree is cleared and the infection subsides it is a very simple matter to remove the tracheotomy tube without any ill effects on the patient.

Case 1. B. S., age 2 years, was admitted to the hospital on Oct. 28, 1937.

Three days before the patient was admitted to the hospital she had a high fever, nausea and vomiting. The fever increased during this period. The doctor noted a membrane over the tonsils twelve hours before admission and gave 20,000 units of diphtheria antitoxin. The entire family had had a streptococcal infection. The father stated that he had had laryngitis for eight weeks prior to the admission of the patient.

There was marked retraction of the chest. The patient was anxious and tired, but had no cyanosis. The tonsils were covered with a follicular exudate.

On the day of admission a low tracheotomy was done because of the marked respiratory embarrassment. This relieved the embarrassment some but not completely. It was necessary to use a soft rubber catheter to aspirate the bronchi at frequent intervals through the tracheotomy tube. Whenever the pus became thick and tenacious, normal saline was injected through the tube and it was then aspirated.

Cultures from the throat showed a non-hemolytic streptococcus. X-ray examination showed a marked bronchopneumonia with areas of atelectasis.

Case 2. S. L., age six months, was admitted to the hospital on Nov. 3, 1937.

The patient had a sore throat four days before admission. After that time the respiratory embarrassment was quite marked and on admission she was quite cyanotic and gasping for breath.

She had marked retraction with deep cyanosis. The respiration was so labored and cyanosis so deep that a low tracheotomy was immediately performed with the patient ceasing to breathe on the operating table. Artificial respiration was used before respiration was again started. The exudate was hemorrhagic and at

times big plugs of blood were aspirated from the bronchi through the tracheotomy tube. The patient expired on the 5th day from an overwhelming toxemia and obstruction of the air spaces.

An autopsy was performed which showed that the bronchial tree was filled with gummy, bloody exudate that could not be aspirated.

X-ray showed generalized pneumonia involving the upper right lobe and the lower left lobe.

Case 3. M. C., age 3 years, was admitted to the hospital on Sept. 23, 1938.

The patient had an upper respiratory infection several days before admission along with other members of the family. The respiration was not difficult at the time of admission. The respiration became more difficult with fairly marked retraction and some cyanosis. Coarse rales were heard throughout the entire chest. She had alteration and suppression of breath sounds with evidence of consolidation of the left apex.

Because the patient seemed quite toxic, it was decided to give citrated blood at intervals. Following the first blood transfusion the patient became better temporarily. Several days after hospitalization there was an extension of the infection to the right lung generally. The embarrassment was more marked than previously. The respiration became so embarrassed that it was decided to have her bronchoscoped. At bronchoscopy the larynx was quite red. The trachea and bronchi were red and edematous with a great amount of secretion both in the trachea and the bronchi. The secretion was not of the tenacious type. The obstruction was from edema. Citrated blood was given again. Because it was impossible to give her enough fluids by mouth a venoclysis was started.

Since bronchoscopy did not relieve the symptoms longer than a few hours a low tracheotomy was done. The bronchial tree was kept clear by aspiration. Following a stormy course the tracheotomy tube was removed five days later. A week later the patient was allowed to go home.

Cultures taken at bronchoscopy showed on two successive times non-hemolytic streptococcus, micrococcus catarrhalis, staphylococcus aureus, and micrococcus tetragenus.

Case 4. G. M., age 4 years, was admitted to the hospital on Dec. 1, 1938.

The patient had had a cold a week before, but was not very sick until twelve hours previous to his admission. Then the respiration became noisy and he grew progressively worse and at the time of admission he was quite cyanotic.

He was quite cyanotic with marked retraction of the chest bilaterally. There was a generalized involvement of the lungs.

The next morning bronchoscopy was done again without lasting relief. Aeration was established by a low tracheotomy. Because the patient's condition seemed so bad and the smears and cultures showed predominantly so many budding yeast cells, citrated blood and sodium iodide were given intravenously on two successive days. The following day another blood transfusion was given and a venoclysis was started. After a very stormy course the secretions diminished and the tracheotomy tube was removed.

Cultures showed staphylococcus aureus (few colonies), non-hemolytic streptococcus and many budding yeast cells.

SUMMARY

1. Laryngotracheobronchitis is not a rare disease.
2. It occurs in all ages but the fatality and incidence is greatest in the group under two years of age.
3. The symptomatology and the pathology of the disease are presented.
4. Attention is called to the importance of cooperation between the pediatricist and the bronchoscopist.
5. Attention is called to the dangers of atropine and opiates.
6. Cases are presented to illustrate the typical picture of the disease.

DISCUSSION

W. R. Thompson, Lexington: The acute condition of laryngotracheobronchitis is generally seen by the pediatrician and the general practitioner before it is seen by the laryngologist and bronchoscopist. It occurs in all ages, as Dr. Andrews has stated, but it is particularly hazardous in infants two years of age and younger. This is due to several reasons: First, the child probably hasn't any partial immunity due to previous attacks of the upper respiratory tract, the bronchi are small, not only actually, but relatively, and they do not have the power to develop cough reflex that occurs in older children and adults.

At first we get an injection, a redness, of the mucous membrane of the tracheobronchial tree. This is a dry swelling and later a thick, tena-

cious secretion develops. Often there is a great amount of swelling just below the glottis, which is due anatomically to the loose connective tissue in the infant, which is not true in the adult. When this thick, tenacious condition occurs, due to the small caliber of the bronchi, there is plugging of the bronchi, and these cases have often been diagnosed as pneumonia and bronchial pneumonia, but, as stated by the essayist, the condition is being recognized more frequently or is better diagnosed than in the past.

The point that I want to emphasize is this: Do not delay in giving these children relief, from the standpoint of making them able to breathe and keeping the air passages open. If a bronchoscopist is available, he is the man to see the child, because by direct inspection of the larynx and trachea he is better able to meet with this condition, but he is not always available and it is necessary that a tracheotomy be done and be done early. That gives a more orderly procedure and you do not run into the hazards of just a life-saving procedure in an emergency when the procedure cannot be carried out adequately. A low tracheotomy and sucking out of the trachea will give these children immediate relief, is very gratifying because you think that they are going to get along all right then, but as Dr. Andrews has stated, they will have a tendency to plug up and perhaps have untoward effects later.

Sulfanilamide has not been the life-saving drug in these cases that we would like for it to be. They improve for a while, but the mortality, as he has stated, is high. Jackson stated it was 70 per cent in 1936, but a later paper of his stated 50 per cent. It is still very high and this is a very serious condition in these children.

Humidity is important. The air should be saturated with water with the steam kettle, boiling water, or anything to keep the humidity up, because these children often become dehydrated early, they become acidotic and very toxic. Among the complications, they get heart failure, they become plugged up, causing atelectasis, breathing is stopped, or they drown, as Jackson says, in their own secretions.

Philip Barbour, Louisville: There is close resemblance between laryngotracheobronchitis and membranous or diphtheritic group. However, diphtheritic croup begins usually with voice changes and the temperature is very little elevated, and there may be evidence of membrane formation in other parts of the rhinopharynx. The marked dyspnea of laryngotracheobronchitis comes on very early and there is a tremendous recession at the insertion of the diaphragm. The temperature is high and there has probably been a history of a coryzal attack. Of course cultures are a very definite aid in the differential diagnosis.

Dr. Andrews has painted for you and Dr. Buckles has also shown you the picture of the mucous membrane. You can see the tremendous difficulty that the child has in getting air down into the lung, and I think where the dyspnea is as marked as it is in these cases the best thing you can do is to do a tracheotomy promptly. In that way you take away a lot of the burden upon the respiratory organs.

I heard Dr. Chevalier Jackson read a paper upon this subject at Kansas City at the A. M. A., which was discussed by Dr. Brennerman, and the consensus of opinion between these and the other men who discussed the paper was that the most important thing of all after the early recognition was warm moist air continuously.

There is one other point which I think should be emphasized, and that is that the thick, tenacious mucus will certainly be made less viscid and less sticky if you thoroughly alkalinize that child. I have seen many times in children that the administration of an abundant amount of alkali will make that mucus thinner. Moist air has the same purpose. These measures get rid of the mechanical interference.

In addition to that, of course, you have a very sick child with an inflammation descending far down in the bronchial tree, and you must maintain the strength of that child by every means that is possible to you. Dr. Andrews has emphasized the fact that these children must not be disturbed very much; they ought not to be examined very much. A very efficient nurse who can handle the child with the least amount of difficulty to the child is very important, but the doctor himself should do as little to the child as is possible after removal of the obstruction, after thinning out of the mucus and securing warm moist air to the child.

The doctor has emphasized the value of transfusion of course, all things that build up the health and strength of the child must be utilized.

These cases come on suddenly, they are very dramatic, and unless you are very prompt in your diagnosis and treatment the mortality is going to be a little bit worse than the 70 per cent that Dr. Chevalier Jackson gets.

S. B. Marks, Lexington: The tragic thing about these cases is that we see them in the home frequently as urgent emergencies and there is so little we can do unassisted by hospital facilities. Some years ago Dr. Mosher of Boston devised what he called a life-saver. It is a curved tube which is well ventilated toward the lower part of it, that can be passed into the trachea of any person, whether adult or infant. I believe there are three sizes made at the present time. Mine is one of the original models and it has in one instance absolutely saved a life.

The second usefulness of this particular tube is in the performance of a tracheotomy under

trying circumstances. After the introduction of this tube, the trachea is under control, you can feel it, and it assists you very markedly in doing an emergency tracheotomy.

As has been emphasized, one feature is the remarkable size of some of these obstructing dry crusts. You pull them out and they are usually large but often so small that you can't conceive of their causing as much obstruction as they do. The child goes on for a few hours and is very much improved.

I should like to ask Dr. Andrews if he has had experience with postural drainage in these cases.

Frank H. Threlkel, Beaver Dam: The thing I would like to emphasize for the general practitioner to remember is that there is such a procedure as bronchoscopy. Last year I had a youngster seven years old who apparently had this condition, and I will grant you it was unrecognized. About the third day she wasn't any better. I sent her to Louisville where she was bronchoscoped, and immediately, the next day, she was better. She was bronchoscoped again the next day. Incidentally they found Type III pneumococcus, but this tenacious, sticky mucus and exudate was present, with Type III pneumococcus predominating. She was bronchoscoped on the second day and made an uneventful recovery. I think we as general practitioners should remember there is such a procedure as bronchoscopy.

W. W. Nicholson, Louisville: The most important thing in the handling of these cases is the nursing care, and Dr. Buckles will bear me out that there are so few nurses that we have trained well enough to nurse these children after tracheotomy is done. I well remember the last case I had with Dr. Buckles. The parents were panicky because they knew that the child would die unless someone was there who knew how to handle him at all times. And it required either Dr. Buckles or his assistants to stay during the entire critical period.

Of course the diagnosis, which is often mistaken, is very important. The nursing care after the tracheotomy is most important.

Harry S. Andrews, (in closing): I will answer Dr. Marks' question first, with relationship to postural drainage in these cases. I presume he favors postural drainage in upper respiratory infections. I also belong to that school. I think most bronchial infections can be benefited tremendously by postural drainage. We have tried postural drainage on these children without very much benefit. The reason is that the material is so tenacious it will not run down. If you could see the material stuck to the side of the aspirating tube it would be easy to see why postural drainage does not help. Most of these children in whom you find this disease are too

young to have very much of a cough reflex; therefore expectoration or coughing up of the material, even though they are in the postural position, is very difficult.

I was delighted to hear Dr. Threlkel speak from the point of view of the general practitioner. That is really the whole point in my bringing this paper before you today. I feel that the mortality in these children depends not upon the men who see them later, but upon the general practitioner who is able to recognize the seriousness of the condition and the approaching obstruction early enough to get them in so that the tree can be cleaned out. It is much easier to keep the bronchial tree open than it is to attempt to get it open after it has already become obstructed.

We have some pneumococcus infections. I was discussing this sometime ago with one of the men from Lexington, and he said he had used some sulfapyridine on one case with marked results. As I said in my paper, the therapy to use depends entirely upon the type of organism, and where you are able to find pneumococci then you certainly should use the appropriate drugs to combat that particular disease. It has been our experience that most of the cases are of the general run of respiratory organism that does not respond to any particular type of therapy.

Another thing which I would like to bring to your attention again is the temperature. In my paper I said these children may have no elevation of temperature or they may have an elevation from 100 to 103 degrees Fahrenheit. Not infrequently, I think, we are misled in the early stages of this condition by no elevation in temperature. I remember about two years ago I saw a patient that was in extremis. A good general practitioner had seen this child periodically over a period of ten days previous to the time he realized the child was having respiratory embarrassment. His whole claim for not having hospitalized the child before was that the child didn't appear sick, took all foods and fluids well, and had no temperature. There was never any elevation in temperature. The child died within a few hours after admission to the hospital, and the temperature never rose over that of the normal rectal temperature. So the temperature may be a deceiving thing, depending entirely on the organism.

Back again to the matter of drugs and alkalization and what-not, that has been one of the most controversial subjects in the discussion by the men who have had a great deal of experience with this disease. Calcium has been used, alkalies have been used, and other things that we have felt probably should cause the tenacious secretion to become more liquid but they have all

been without avail, even the use of iodides has proved of very little benefit except in those cases where the etiology is due to yeast.

I should like to thank Dr. Marks again for bringing up the subject of the life-saving tube. He beat me to that. I was going to discuss that from the point of view of the general practitioner. Not infrequently a bronchoscopist is not available and the general practitioner must do something immediately. It is probably a wise thing to have one of these life-saving tubes in your bag at all times so you can take your time in doing a tracheotomy if you think it is absolutely necessary to do so. The time element is quite important, as was shown in the second case that I reported. The man knew the disease that he had in his family. Every single member of his family was sick with this particular disease. He himself had had what he called the croup for a period of eight weeks prior to the time these children were admitted. We asked him at the time of admission of the first child to watch his other children. In spite of that he let his little baby stay at home four days before she was brought into the hospital practically moribund.

In closing, I should like to say that if we all appreciate what this disease is, what causes death, and that the younger the age of the child the higher the mortality, I think we can all by cooperation reduce the mortality in this devastating disease.

THE CONSIDERATION OF LESIONS IN THE UPPER URINARY TRACT SIMULATING GASTRO-INTESTINAL DISORDERS

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The substance of this paper is based on case reports which present lesions in the upper urinary tract. The diagnosis is often difficult; the symptoms are frequently not apparent or are overlooked. Obviously there are many surgical exploitations on the gall bladder, appendix and female generative organs without relief of symptoms before the real cause is suspected.

Kelly states that, "the most prominent features which lead one to suspect stricture of the ureter are complaints of back-ache, pain in the pelvis, and bladder symptoms. The patient often adds the complaint of gastro-intestinal distress variously diagnosed as cholecystitis, gastric

ulcer, chronic appendicitis or erroneous cystic ovary." In considering obscure symptoms simulating intra-abdominal disorders, we must not be content with a simple urinalysis and blood count in ruling out the urinary tract; emphasis should be made that not all renal lesions show abnormal urinary findings, as will be shown later. Hence other diagnostic procedures must be used as a process of elimination. The most simple at our disposal is intravenous urography, which may be carried out in a fairly accurate manner by any physician possessing X-ray equipment.

Hinman has wisely stated that, when in doubt regarding a patient who presents vague abdominal symptoms, the cystoscope is a valuable instrument.

In order to more clearly understand the mechanism by which a symptom produced

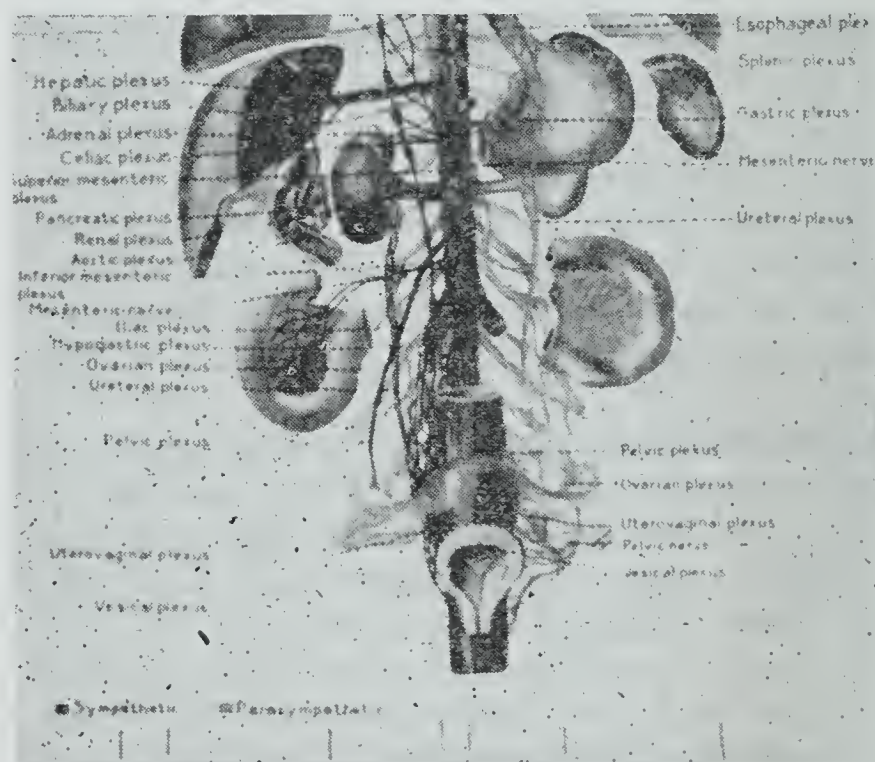


Figure 1
Showing distribution and interrelationship of autonomic nervous system.

is directly associated with the kidney and the inter-relationship of nerve supply to the abdominal viscera, your attention is called to a diagrammatic illustration (Fig. 1) with distribution of the autonomic nervous system, defined physiologically and histologically as the visceral nervous system; it is composed of numerous ganglia, all being connected by an intricate system of sympathetic nerve fibers arranged in two chains along the spinal column (Textbook of Histology, Maximow and Bloom).

The terminal or postganglionic nerve fibers derived from the thoracolumbar, cranial and sacral ganglia, enter into the formation of the renal and ureteral

plexus. They also form the celiac, biliary, superior and inferior mesenteric and pelvic plexus. The interrelationship of these various plexus is so complex that when the kidney or ureter is disturbed one might expect afferent impulses to pass through the plexus of the gastro-intestinal or pelvic organs with subsequent symptoms relative thereto.

Consideration will be given to two groups of cases: (1) Inflammatory (2) Obstructive. The inflammatory is subdivided into obstructive and non-obstructive. By inflammatory obstructive type, is meant an obstructive factor to the free outflow of urine, the result of bacterial invasion. It may be either partial or complete.

GROUP (1), CASE 1. (Illustrates a complete obstruction the result of periureteral inflammation). Mrs. R. P., age 38, seen in consultation with Dr. J. M. Kinsman on April 14, 1938. Complaint: Pain in left loin and back; nausea and abdominal distention. Past history: Two years ago she complained of left lower abdominal pain, thought to be colitis—the distressing symptom persisted in spite of treatment and one year later she submitted to pelvic operation elsewhere. Some pain, burning and frequency of urination and periodical left pelvic pain has persisted up to the present time. Present history: Onset 24 hours previously a sudden acute pain in the left groin and back; nausea and abdominal distention. She has no bladder symptoms.

Physical examination: Patient is well developed and nourished, not appearing very ill but rather apprehensive. The temperature is recorded 99.2; pulse 88; blood pressure 110 over 60; laboratory findings: hemoglobin 81%. Red cell count 4,020,000; white cell count 8,800; and polys 78%. The urine is clear, light amber color; acid reaction; specific gravity 1.012, no albumin, sugar or casts; occasional red blood cell and 6-8 pus cells. The mucous membranes are well injected. There is a slight muco-purulent discharge from the right ear. No nasal obstruction; teeth in good condition. Thyroid not palpable and the heart and lungs reported essentially normal. The abdomen is somewhat distended, tympanic, and tenderness detected over its entirety, more especially on the left.

Roentgen examination of the gastro-intestinal tract was essentially negative.

Intravenous urogram was made using 20 cc. diodrast. Primary film made shows no evidence of renal, ureteral or vesical calculi. The 10, 20 and 45 minute films disclose normal function of the right kidney. The left kidney is non-functioning, and appears to be larger than normal.

In view of a left renal anuria, cystoscopy was decided upon. The bladder interior is entirely normal except that no urine efflux was observed from the left ureteral orifice. No. 6 F. ureteral catheters were passed bilaterally for 30 cm. at which point urine from the left appeared to flow continuously and was dark amber color, in contrast to the right which flowed intermittently and was of

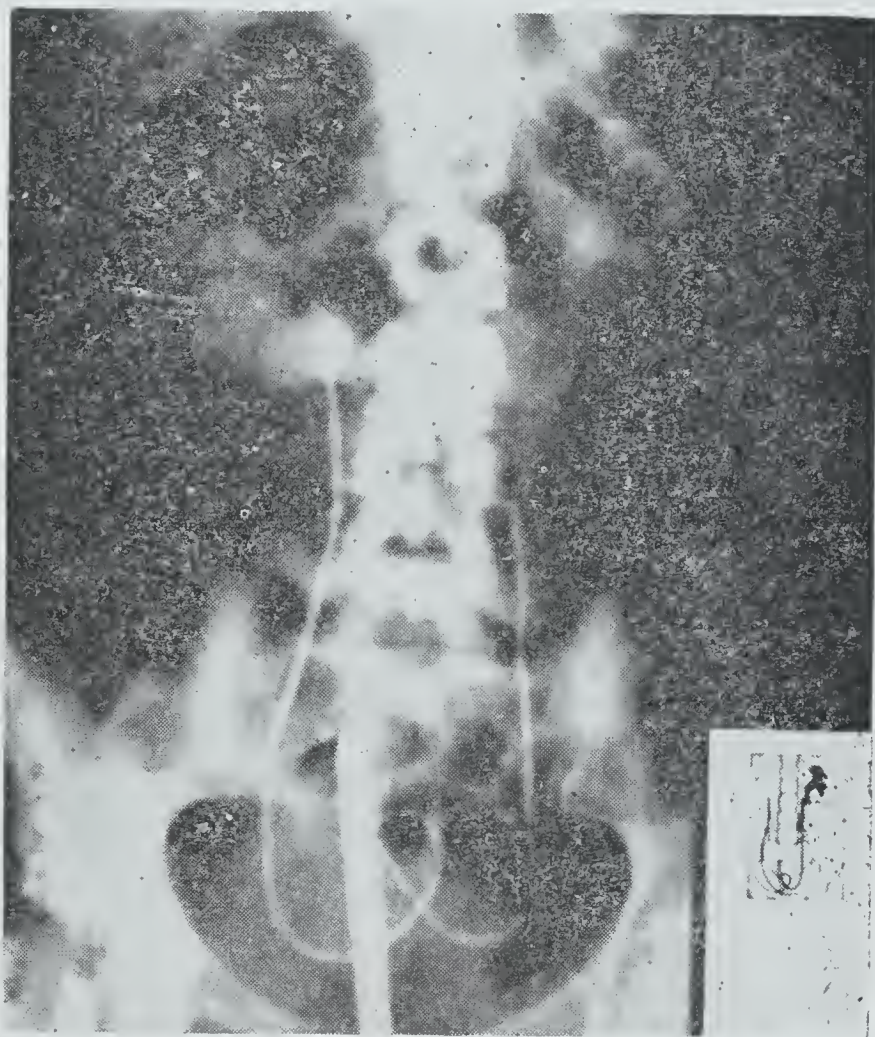


Figure 2

Shows obstructed area of the ureter resembling an inverted "N" with diagrammatic illustration.

light amber color. Histological study of the catheterized specimen of urine was essentially normal except an occasional red blood cell and many pus cells. Culture of urine from left kidney *B. pyocyaneus*. Left retrograde pyelogram (Fig. 2) revealed renal pelvis and calices to be dilated. The ureter presents an obstructed area 4 cm. from its pelvic junction, resembling an exaggerated inverted "N"; above which much dilatation is present. In the ureteral shadow above the stricture area, are three well defined shadows of decreased density which was interpreted

roentgenologically as non-opaque ureteral calculus.

At operation the renal pelvis and upper 1-2 of the ureter was exposed. There is a distinct kink of the ureter 4 cm. from its pelvic junction, held firmly by dense adhesions. The surrounding fat is indurated. The ureter and renal pelvis was mobilized and explored; no stones were found. The ureter is transplanted laterally and splinted with No. 8 catheter the proximal end emerging through a posterior pyelotomy incision and to the skin surface along with a nephrostomy drain. Wound closed in layers. Recovery with no recurrence of symptoms.

GROUP (1), CASE 2. (Illustrates a partial obstruction to the free outflow of urine, from stricture of the ureter the result of tuberculosis, and often misdiagnosed as erroneous cystic ovary or pelvic inflammatory disease). Mrs. W. R. C., age 33, referred by Dr. D. M. Cox on November 21, 1938. Chief complaint: "Stick-ache" sensation in the left pelvic region with an occasional burning and frequency of urination. Past history: Nervous breakdown (?) two years ago with a period of rest in bed for a few months. No pregnancies. Present illness: Onset about the time of nervous breakdown two years ago as a "stick-ache" sensation in left lower abdomen. Occasionally, she has some bladder irritation in the form of pain and urgency on urination. The urine has been examined on numerous occasions with no abnormal findings.

Physical examination: Patient is well developed and fairly well nourished. The physical findings of the heart, lungs and glandular system are reported to be normal. Her physician states that in the course of a pelvic (vaginal) examination, an area of induration was detected in the left fornix, palpation of which reproduced the pain for which she sought medical advice. This area of induration represents what was thought to be about the left ureter at its vesical attachment.

Cystoscopic inspection of the bladder disclosed a "ragged" golf hole appearing left ureteral orifice. A No. 4 F. ureteral catheter was passed with slight difficulty and retrograde pyeloureterogram made (Fig. 3). You will observe that the renal pelvis, calices and ureter are dilated, with a narrowing at the vesical orifice. Some irregularity can be seen along the terminal ureter, suggesting tuberculosis.



Figure 3
Pyeloureterogram. Note conical abrupture at vesical orifice with slight beading effect suggestive of tuberculosis.

Catheterized specimen of urine (bladder) is straw color, slightly cloudy; H-ion concentration 6.0; specific gravity 1.016 with a trace of albumin but no sugar; 20 pus cells and 150 red cells per cmm. Stained smear is negative for tuberculosis. A 24-hour specimen of urine was collected and concentrated; stained smear from this specimen was positive for tubercle bacilli.

The cystoscopic and laboratory findings are conclusive of a tuberculosis ureteritis with stricture at the vesical orifice secondary to a renal tuberculosis. Treatment: There still exists two schools of thought regarding the treatment of tuberculosis of the kidney and ureter. One contends that conservatism should be practiced in every case while the other believes in radical nephroureterectomy. The former treatment was chosen in this case, directing our attention to improvement of drainage in the form of ureteral meatotomy. Rest in bed, and improvement of general health (cod liver oil, heliotherapy, etc.) Patient has been free of symptoms for past 8 months; the eventual outcome however, will depend upon a continuation of the medical care with a view of spontaneous healing of the tuberculosis lesion.

The non-obstructive inflammatory lesion of the urinary tract often presents our greatest difficulty in diagnosis; most instances the cystoscopic, laboratory and X-ray study will reveal little or no facts and our clinical acuity may be taxed to its utmost. Two cases are submitted: The first pyelonephritis and the second peri-renal abscess.

GROUP (1), CASE 3. Mrs. W. H. W., age 52, seen in consultation on March 16, 1938, with Dr. C. E. Gaupin. Chief complaint: "Sick all over, chills and fever." Past history is irrelevant. Present history: Onset two weeks previously with chills, fever, general malaise, body aches and slight nausea. The urine at the onset contained a trace of albumin and many pus cells but these cleared up on administration of urinary antiseptics.

Patient admitted to the hospital on March 10th for study because of persistent chills, fever, nausea, abdominal distention, etc. The temperature during the first six days varied from 99 to 104; pulse 82 to 118 per minute, and blood pressure 136 over 88. The fluid intake and urine output was about equal, averaging around 500 cc., with specific gravity measured daily ranging from 1.013 to 1.020. The laboratory findings on admission are as follows: Hemoglobin 11.2 gms. or 66.3%; red cells 3,990,000; white count 11,000. The count was repeated on the 14th or 4 days later, with hemoglobin 59.2%, red cell count 4,150,000, and white count 13,150. The urine is clear, amber color, specific gravity 1.013, trace albumin, no sugar, 5-7 pus cells and no blood.

Physical examination: The heart and lungs are reported essentially normal. The abdomen is large, tympanic, with marked tenderness on palpation over its entirety and some tenderness in both loins and back.

Roentgen examination on the 16th is as follows: Flat film shows both kidneys normal in size, shape and position. No evidence of urinary or biliary calculi. Psoas muscle shadows are normal. Intravenous urogram: The dye appears readily in the right kidney, ureter and bladder. The left kidney excretes no dye during the first 20 minutes but the 30 minute film shows a faint trace of dye in the left ureter. In view of the above findings a cystoscopic study was made for histological study of the urine and retrograde pyelogram. On cystoscopic examination, a

No. 6 F catheter was passed to the left renal pelvis with no obstruction encountered. The urine from the left kidney was essentially normal with only an occasional pus cell and red blood cell. Intravenous P. S. P. appearance time right kidney 5 minutes: 12½ cc. of 6% in 15 minutes. No dye excreted from the left. X-ray studies of retrograde filling of the left kidney (Fig. 4) shows good filling of the pelvis and calices with no diagnostic variations from normal. The outlines of the left kidney are smooth and show no evidence of a tumor.



Figure 4
Retrograde pyelogram interpreted as entirely normal. Entire cortex was diffusely studied with minute suppurative areas.

Summary of X-ray examination shows a normal functioning of the right kidney and a non-functioning left kidney without any diagnostic variations in the pelvis, calices or ureter. The left diaphragm and psoas muscle are normal and these should be altered with a perinephritic disease. Chemistry was recorded 3-16-38 as 37.5 mgm. N. P. N. and 19 mgm. urea N. per 100 cc. blood. Clinical and urologic study led us to believe that we were definitely dealing with a pyelonephritis; hence, two transfusions 500 cc. each, of citrate blood and several glucose infusions were given during the next 6 days and left nephrectomy carried out

with complete recovery. Pathological report: Microscopic diagnosis: Acute pyelonephritis.

GROUP (1) CASE 4. (Perinephritic abscess) Mrs. G. G. H., age 52, seen in consultation at the Infirmary with Dr. R. R. Elmore on October 17, 1937. Chief complaint: Pain in left ilio-costal space, chills and fever. Past history: Carbuncle on neck and boils in left axilla in August of this year, otherwise irrelevant.

Present history. Onset two weeks ago with pain in left back, light chills, malaise, loss of appetite, etc. Physical examination: Patient is well developed and nourished, appearing quite ill. Temperature is recorded 102.2; pulse 84; blood pressure 126 over 92. Heart and lungs are reported as normal. The abdomen is slightly enlarged and slight tenderness of left upper quadrant and some muscle guard in the left ilio-costal space.

Laboratory findings: Blood: Hemoglobin 52%, red cells 3,100,000; white cells 17,400, and polys 90.5%. Urine: Acid, amber color, specific gravity 1.022, trace albumin, no sugar, occasional pus and red blood cell.

Cystoscopic study reveals no diagnostic variations from normal. Catheterized specimen from the left kidney shows 3-5 red cells and 10 pus cells per cmm. Intravenous P. S. P.; right kidney 11% in 15 minutes; left kidney 6% in 15 minutes. Left pyeloureterogram (Fig. 5) shows no diagnostic variations from normal. Clinical impression: Perirenal inflammation. At operation a large perirenal abscess was opened and drained. Culture staphylococcus albus. Recovery complete.

GROUP (2). This group (obstructive, non-inflammatory) of cases which I submit represents the most common errors, variously diagnosed as chronic appendicitis, gall bladder disease, etc.

Case (1), No. 1542 male, age 42. Referred on March 6, 1938 by Dr. E. H. Baker. Chief complaint was pain in the right lower abdomen with nausea and vomiting. Past history: Appendectomy November, 1937, elsewhere for the same complaint from which he is suffering at present time, otherwise negative. Present history: Sudden onset 10 hours previously with acute pain in lower right abdomen, nausea and vomiting, and which was relieved by an opiate. Physical examination: Patient is well developed and nourished, not appearing ill. The tempera-

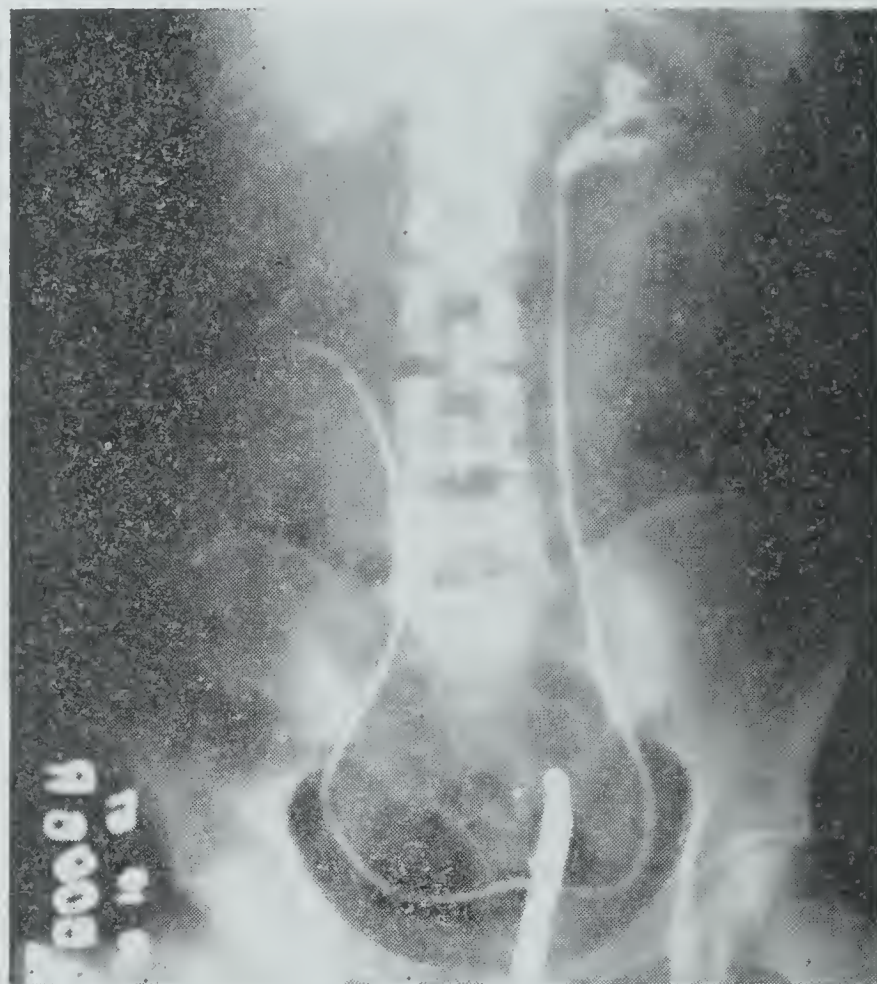


Figure 5

Left retrograde pyeloureterogram is entirely normal with no obliteration of the psoas muscle shadow. At operation large perirenal abscess opened and drained.

ture and pulse were normal. The heart and lungs are reported normal; the abdomen is slightly distended with tenderness about an area equal to McBurney's point on the right with slight muscle guard. There is a gridiron scar 3 inches in length of recent origin. Laboratory findings: Blood count was normal and the urine shows microscopic hematuria.

Roentgen examination: Flat film shows the right renal shadow to be slightly larger than normal. There is a small radiopaque shadow in line of the right ureter at about the bladder junction. Intravenous urogram (Fig. 6) was made which shows the renal pelvis, calices and ureter to be dilated down to the juxta-vesical portion at which point there appears an area of definite increased density measuring 2x4 mm. and which is interpreted as an impacted ureteral calculus. The cystoscope was passed into the bladder and inspection disclosed a small calculus protruding from the ureteral orifice which was readily removed with a cystoscopic rongeur. Recovery, no recurrence.

GROUP (2), CASE 2. (Is one who had a so-called chronic appendicitis with acute exacerbation). No. 1574, female, age 32, referred on June 4, 1938, by Dr. Ben Reid.

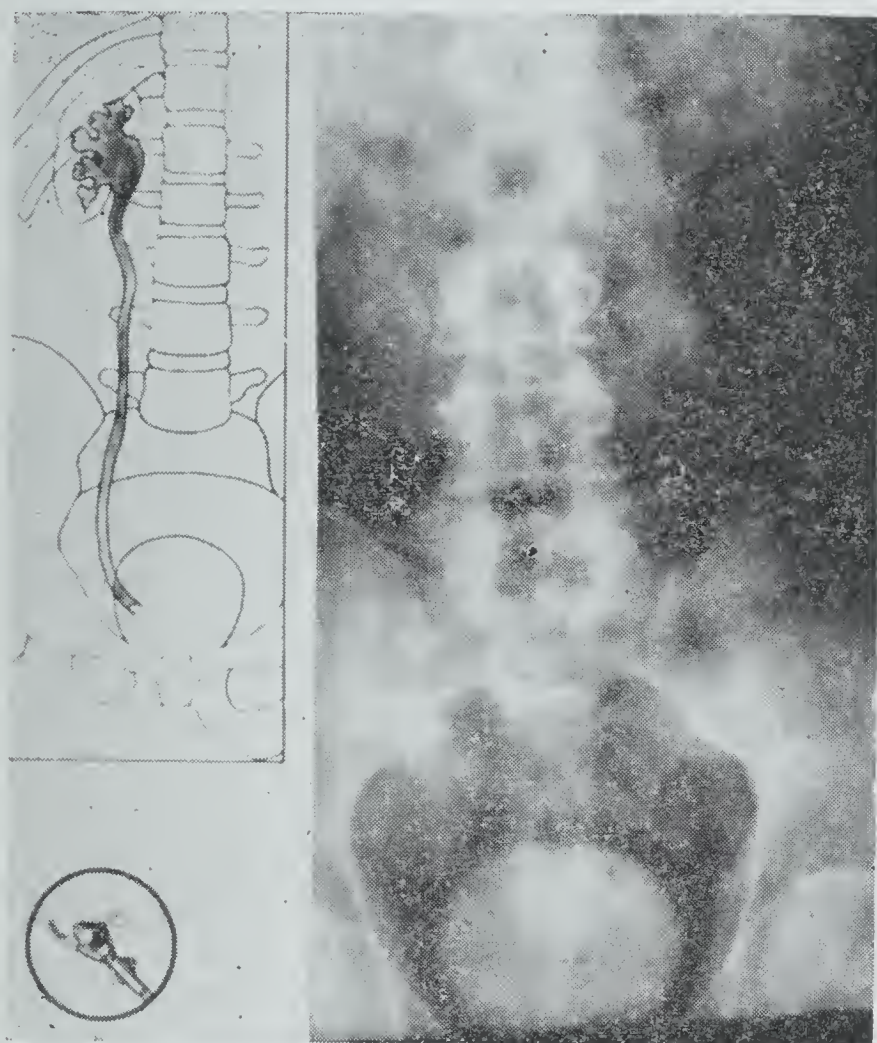


Figure 6

Intravenous program. Note dilation of pelvis and ureter the result of impacted stone at the vesical orifice.

Chief complaint: Pain right lower abdomen. Present illness: Onset two weeks ago with sudden dull ache in lower right abdomen; and in view of a history of repeated attacks during past six years similar to the present, and on several occasions appendectomy advised, she was admitted to the hospital for further study and possibly an appendectomy. On admission her temperature was recorded as 98.4; pulse 78. Blood pressure 122 over 72. Laboratory report: White cells 5,850, polys 67%, lymphocytes 32%. Urine: Specific gravity 1.016; trace albumin; 1 or 2 pus cells, occasional clump and occasional red cell.

Physical examination: Patient is well developed and nourished, not appearing ill. Blood pressure 120 over 70. The head, neck, heart and lungs are reported essentially normal. The abdomen is not enlarged or tympanic. No masses or abnormality detected except slight tenderness about McBurney's point. Bimanual pelvic examination discloses retroflexion of the uterus—adnexa normal. In view of the lack of substantiating evidence in favor of the appendix, an intravenous urogram was made which disclosed normal left pyelogram and non-function of the right kidney. Patient was al-

lowed to go home. The discomfort in the right abdomen persisted and on June 3, 1938, she had a definite hematuria and on the following day, June 4th, she appeared for cystoscopic examination. The bladder interior is entirely normal. A No. 4F ureteral catheter was passed up the right ureter with a great deal of difficulty, obstruction being encountered at about 6 cm. Urine obtained from this kidney shows a few pus and blood cells.

Retrograde right pyeloureterogram (Fig. 8) disclosed marked hydronephrosis and hydroureter above the point of obstruction referred to under cystoscopic study. At this obstructed point, the ureter appears to be shaded and bluntly abrupted.

Cystoscopic and roentgen impression: Obstruction of ureter with secondary hydronephrosis probably the result of new growth.

At operation a moderate hydronephrotic kidney and ureter were removed. Pathological specimen (Fig. 8A) shows kidney and ureter intact. Observe ureter incised through tumor formation. Microscopic diagnosis: Fibromyoma of the ureter. Patient made good recovery.

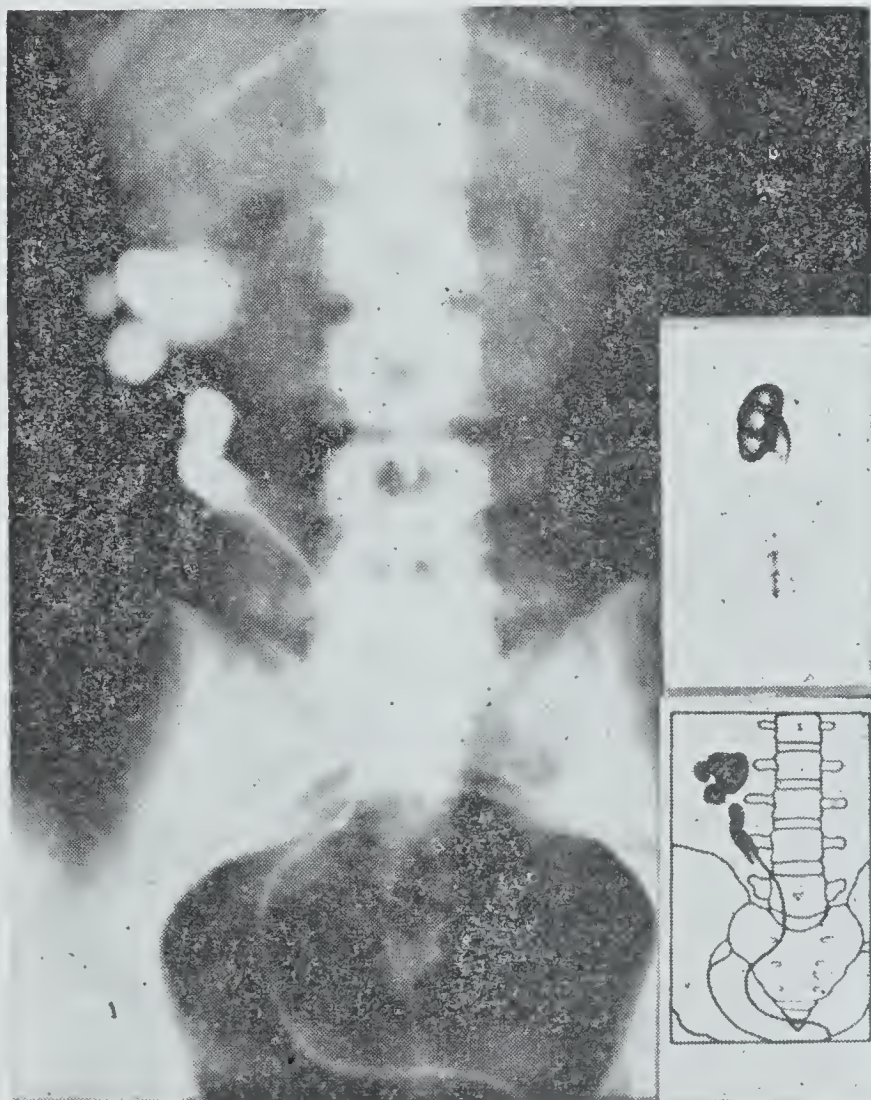


Figure 8

Right retrograde pyelogram. Note hydronephrosis and upper hydroureter with shading off at the tip of the catheter suggesting an obstruction from a new growth. Pathological specimen was that of a fibromyoma of the ureter.

GROUP (2) CASE 3. (A left side and back discomfort following the use of alcoholic beverages with normal urine.) No. 1616, male, age 24, beer truck driver, referred on August 15, 1938, by Dr. Ben Reid because of abnormal roentgen findings in the left kidney. Past history is irrelevant.

Present history: On several occasions during the past several months he has experienced a dull aching sensation in the left ilio-costal space of several days duration, following the use of beer. No history of urinary symptoms or abnormal findings in the urine.

Cystoscopic study disclosed no abnormal findings in the bladder. The right and left ureters were catheterized and specimen of urine obtained for histological study. The urine from both the right and left kidney was essentially normal. Left retrograde pyelogram (Fig. 9) disclosed moderate hydronephrosis with apparent lack of rotation, and, an obstructive factor at the uretero-pelvic junction, probably the result of an aberrant vessel to the lower pole of the kidney.

At operation a moderate pyelectasis was found and an obstructive factor to

the outflow of urine from the renal pelvis in the form of an aberrant vessel to the kidney (Fig. 9B). The vessel was ligated and excised (Fig. 9C) which relieved the acute uretero-pelvic obstruction and nephrostomy drainage instituted (Fig. 9D). This patient made a complete recovery with no recurrence of symptoms.

GROUP (2) CASE 4. (Illustrates a condition which suggests some disturbance about the stomach, duodenum, and gall bladder rather than the urinary tract.) No. 1502, female, age 31, referred on November 3, 1937, by Dr. J. W. Craddock. Chief complaint: Soreness right upper abdomen. Past history: During a pregnancy eight years ago she suffered an attack of acute indigestion of several days duration and a similar attack while pregnant five years ago. For four months following this last attack, she complained of pain in the right hip, referred down the leg. There have been frequent complaints of indigestion and gaseous distention, and constant full feeling in the right upper abdomen. She has had constipation more or less all her life. Has always been nervous and thinks that sometimes the nervousness may be the cause of some of the trouble. She sleeps well; has some relief on reclining.

Present history dates back to last pregnancy 5 years ago, when she had acute indigestion. She has had gaseous distention and a fullness in the right upper abdomen, not associated with foods, almost constantly; some relief is obtained by the use of saline purgatives. Four weeks ago she had frequency of urination and pain in right back; was nauseated, and had chills and fever.

Physical examination: Patient is well developed, fairly nourished and appears rather uncomfortable. The blood pressure is 110 over 60; temperature 99.2 and pulse rate 92. The head, neck, heart and lungs are reported to be normal. Her reflexes show no diagnostic variations from normal. The abdomen is slightly distended, tympanic and tenderness detected over the entire upper right quadrant. The liver is not enlarged. The right kidney is palpable and appears to be more freely movable than normal. Questionable tenderness is complained of along the course of the right ureter.

Cystoscopic examination disclosed no bladder abnormality. A No. 6F ureteral catheter passed bilaterally to the renal

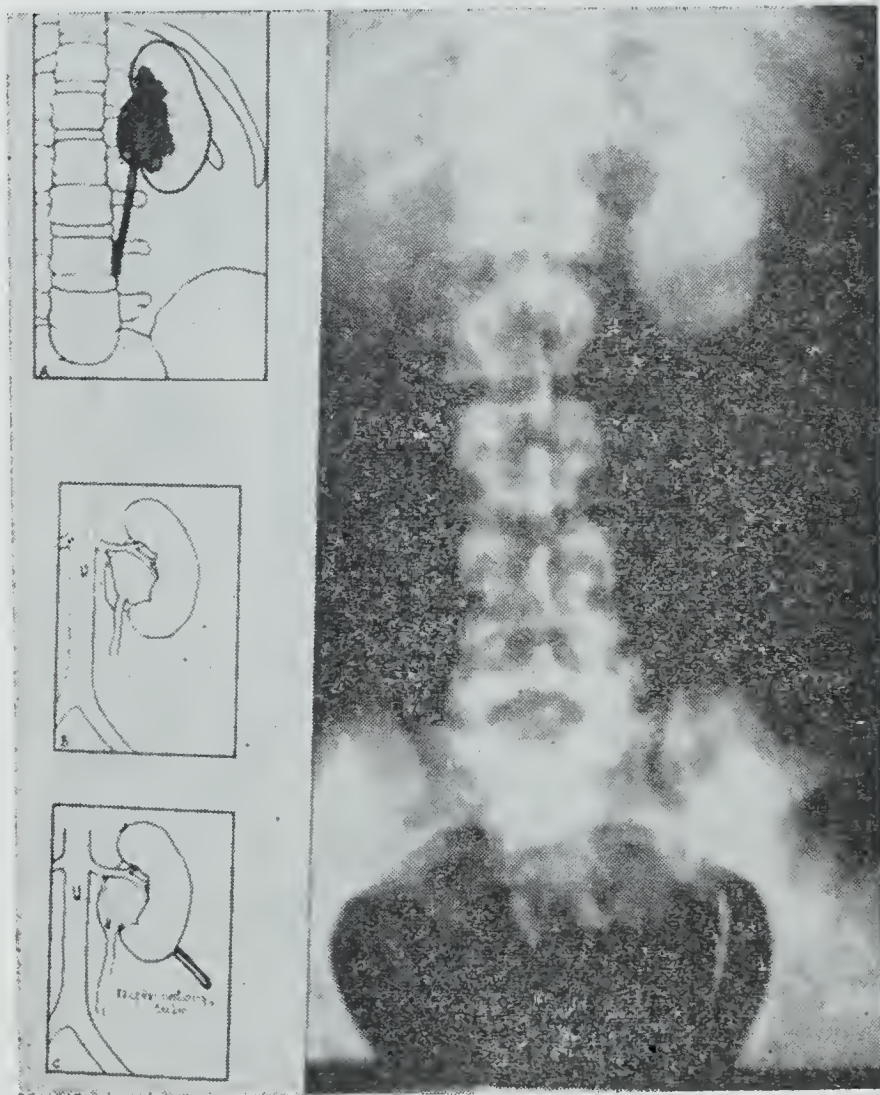


Figure 9

Retrograde pyelogram shows marked hydronephrosis with diagrammatic illustration of an aberrant vessel as being the obstructive factor at the uretero-pelvic junction.

pelvis and specimen of urine collected for histological study. A bulb catheter was passed to right renal pelvis and on withdrawing, a definite "hang" was detected near the pelvis and again about 2 cm. from the bladder orifice.

Laboratory findings: Urine (bladder) is clear, straw color; specific gravity 1,005, no albumin or sugar; occasional pus cell but no blood or casts. Blood count: Red cells 4,250,000; white cells 7,600 and polys 74%; intravenous P. S. P. appearance time 5 minutes on right and left. Concentration of 15 minutes specimen was 10% on right, 11% for the left. Catheterized (ureteral) specimen of the urine shows occasional pus cell from each kidney.

Several transureteral dilatations up to 16 F were carried out and a 6 weeks rest period in bed with foot elevated and forced feeding gave some relief for a few months.

An intravenous urogram made later shows moderate hydronephrosis with a distinct stricture formation of the ureter (Fig. 10) approximately 1 cm. from its pelvic attachment. Serial films show this deformity to persist. There was a renal descent of nearly 5 cm.

In view of a recurrence of symptoms following the conservative treatment, surgical intervention was advised in the form of a ureteroplasty and suspension of the kidney. At operation the kidney pelvis and upper ureter were mobilized. There is a definite narrowing or stricture formation approximately 1 cm. from the renal pelvis which was treated after the method of Finney and renal suspension after the method of Lowsley. The ureter is splinted with a No. 8 ureteral catheter about the plastic repair, emerging from a posterior pyelotomy incision and to the skin along with a nephrostomy drain. Recovery of this kidney has been complete.

This paper has been presented with a view of demonstrating several difficulties encountered in renal disorders, the symptoms of which in most instances are in favor of a gastro-intestinal disorder. Second, a diagrammatic sketch illustrates the sympathetic nervous system showing the inter-relationship of the various ganglia from which the plexus to the gastro-intestinal and renal systems are developed. Third, a series of case histories are presented which illustrate definite lesions in the upper urinary tract, most of which were devoid of symptoms relative to this system. In conclusion, there is one point which I wish to bring out more forcibly than any other, and that is, the study of the urinary system, as a process of elimination, before the patient is subjected to unnecessary surgical exploitation to the intra-abdominal viscera whose symptoms are vague, indefinite and lacking in evidence to justify such procedure.

DISCUSSION

Lewis Bosworth, Lexington, I wish to congratulate Dr. Atherton on his stimulating and able presentation of such a pertinent subject, which should arouse the interest of the general practitioner, the surgeon and the urologist alike. As Dr. Atherton has indicated, all too frequently the patient with true uro-pathology has been diagnosed and operated upon for intra-peritoneal disease which did not exist, and all because the symptoms produced by certain diseases of the upper urinary tract at times mimic so closely those of diseased intra-abdominal organs.

One of the most frequent symptoms of kidney stone is indigestion. Woodruff in an analysis of sixty patients who had had operations for nephroptosis, states that twelve had been mistakenly operated on because the symptoms pointed to the digestive tract. Bumpus and Thompson in a review of 1,000 cases of renal

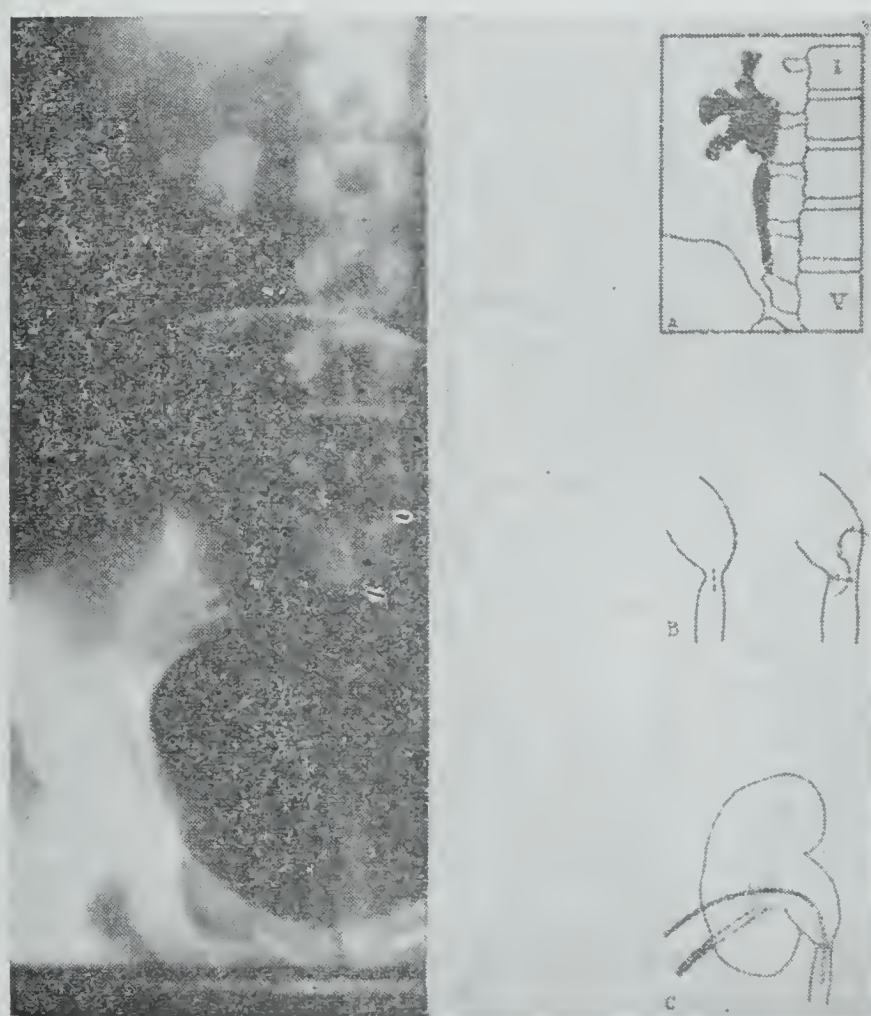


Figure 10

Intravenous pyelogram with serial films confirmed stricture of the ureter immediately below its pelvic attachment with diagrammatic illustration of surgical repair.

calculus diseases found that 162 had been diagnosed as having peptic ulcer or cholecystitis. Lowsley, in reviewing a series of 84 urological patients, found that 39 had had major surgical operations without relief of symptoms.

The close attachment of the ureter to the peritoneum for nearly two-thirds its length, accounts for many referred abdominal symptoms when true ureteral pathology exists. The anatomical position of the two kidneys with their close relation, on the right to the duodenum, gall-bladder and ascending colon, and on the left to the descending colon, the tail of the pancreas and a portion of the stomach, can easily account for the often misleading symptomatology. It is easy to see how pathology in the kidneys can jeopardize the physiology of any of these neighboring organs when we consider their intimate anatomical relationship, blood, lymphatic, and nerve supply, as well as the character of their function, namely, that of eliminating waste products.

In closing, let me say that it is not in a spirit of gloating or of ugly criticism that the urologist reports his experiences along these lines, but it is with the hope that by continued healthy presentations, such as Dr. Atherton's, the general practitioner and surgeon may become a little more urological minded.

Burnett Wright, Nashville, Tenn.: I am doubly pleased of course, to be here and to attend the meeting of the Kentucky Medical Association, of which I was formerly a member, after an absence of twenty years, and to have this meeting in my old home town. I have been very much entertained by Dr. Atherton's paper on a subject about which comparatively little has been written.

In our experience, the most common lesions of the upper urinary tract that have caused confusion have been those, on the right side, and quite a lot of thought and discussion might be devoted to a consideration of lesions in the upper right quadrant alone. However, I think of all the group of upper urinary tract pathology, stones, nephroptosis, and ureteral strictures are perhaps the most common with which we may find difficulty in arriving at a diagnosis.

Hunner's classical study and description of ureteral strictures and his statement that some thirty per cent were cases that showed abdominal scars, from misapplied surgery particularly where the stricture was on the right side, must be remembered. Stones that produce confusing symptoms as a rule are small stones, that is they are small enough to obstruct either at the ureteropelvic outlet or in the ureter. Large stones rarely give confusing symptoms. Of the three conditions that I have mentioned, I want especially to emphasize a few points about the diagnosis of nephrotosis, that stepchild of general surgery, as Dr. Bransford Lewis once character-

ized it, which now is being recognized by urologists, and by many general surgeons, as a distinct clinical entity about which we have some accurate information, for which we can make an accurate diagnosis, and to which we can apply a surgical remedy that is often spectacular in its curative effect.

Until Mr. Frank Kidd came to this country from England as guest speaker before the American Urological Association at its Memphis meeting some ten or twelve years ago, one almost hesitated to mention nephropexy before an American medical or surgical audience. The operation had been so badly abused, had been misapplied so many times and had failed so dismally in the great majority of cases, that it had fallen, justly, into disrepute. But Mr. Kidd pointed out three things that I think did more to crystallize our thought on the indications for the operation of nephropexy than anything else that has occurred in American medical literature. He said first of all that an individual must have a pain that can be localized in the kidney, and that is very easy to do. When the kidney is catheterized and one does his pyelogram, if he will carefully over-distend the pelvis of the kidney he can accurately reproduce the pain from which the patient has been suffering, if the pain has originated in the kidney. Second, he must demonstrate a movable or ptosed kidney, and to do that one should always include an upright pyelogram in the study. No pyelographic series is complete, whether it is intravenous or retrograde, unless it includes a picture made in the standing position and not in the sitting posture, as is so frequently done. Third, Mr. Kidd said that the pelvis of the kidney and often the upper ureter as well, must show some pyelographic evidence of obstruction.

If we have those three requirements in a patient who is being made an invalid, as so many of them are, by reason of the constant nagging pain that comes from a ptosed kidney, I see no reason why anyone should hesitate to put that kidney in position where it will drain and thereby relieve the situation. There are only two ways in which that can be done, one by the use of some mechanical belt or appliance, which unfortunately fails in a great majority of instances, or, second, by a nephropexy. To do a nephropexy implies a bit of surgical skill. There are so many ways of doing nephropexies that one wonders what is the best of all. The multiplicity of methods speaks against the virtue of any one method. During the last two years we have been using Lowsley's ribbon catgut method with complete success, and to those of you who do nephropexies (and I hope more of you will do them provided your operations are first based on accurate pyelographic evidence of the necessity for it) I recommend that you try Lowsley's method.

Lytle Atherton, (in closing). I only wish to reiterate the importance of the use of intravenous urography or even a urological study in all obscure conditions of the abdomen before subjecting the patient to unnecessary and useless surgery, or in those conditions who do not respond to the simpler forms of treatment.

SOME THORACIC COMPLICATIONS OF PULMONARY TUBERCULOSIS

HENRY C. SWEANY

Chicago

I am highly honored in being asked to join the long list of notable men who have appeared before this body to discuss some phase of tuberculosis. Although I am last (and least) of the group the confidence you have shown gives me great inspiration. The subject chosen for this evening has been selected with the idea in mind of keeping off the beaten pathway and seeking information in some of the numerous by-paths of the many sided disease known as tuberculosis. It is obvious that all of these by-paths cannot be followed in one evening. It has, therefore, been decided to discuss some of the important thoracic complications of tuberculosis.

The subject will be divided into the most logical anatomical divisions, first of which will include the complications pertaining to the trachea and bronchi.

Of recent years tuberculosis tracheobronchitis has been recognized to be a complication of considerable importance. Not only do the active lesions cause distressing symptoms, such as cough and pain, but perhaps more important the healing of these lesions produces fibrous contraction which results in stenosis, and consequently serious dyspnea. The most common form of this disease has been studied by Sandler, Eloesser, Samson, Barnwell, Burgher, Lillig and Culp, Ornstein, Hawkins, and Cohen and Higgins. The lesions are usually described in the beginning as plaques or nodular tubercles in or beneath the mucous layer. Ulceration follows, and many of these ulcerations become quite deep particularly in the part of the trachea not covered by cartilage. As the patient's condition improves these lesions frequently improve as well. Many times specific treatment

aimed at the ulcers alone has been successful. Finally fibrous tissue will form and bridge the crater caused by the ulcer, and as it does, the lumen of the bronchus or trachea will be constricted in proportion to the amount of fibrous tissue formed. Ordinary constriction leads to dyspnea that may be intense. Wheezing and ronchi are frequently noticed by the patient, particularly when in the recumbent position. The patient will sometimes speak of a wheezing under the sternum that they can feel and it may be heard at a distance. If the constriction is sufficiently great a main stem bronchus may be occluded and the lobe supplied by this bronchus will automatically become collapsed. This condition has been improved surgically by bronchoscopic dilatation of the stricture.

The next anatomical unit of great importance is the pulmonary and bronchial lymphatic apparatus. Situated at practically every bifurcation of the many bronchi, arteries and veins, are accumulations of lymphoid tissue. These nodes are joined to each other by a network of lymph vessels. The lymph vessels are particularly rich around the bronchi and pulmonary arteries. It has been shown by Miller that they also send branches into the depths of all of these structures.

After tuberculous infection takes place in the lung parenchyma there is the usual progression down the lymphatic channels towards the hilum and thence to the thoracic duct. The lymph nodes along the way become enlarged and many caseous foci form within them. Not infrequently the perifocal involvement around the caseous foci become extensive, in which case there may occur a compression of the lumen of the bronchus. Simultaneously with this compression there is a spread of toxemia throughout the surrounding tissues causing an edematous exudate in perivascular structures and within the walls of the bronchi themselves. As the toxic elements reach the mucous glands of the bronchi there is first a stimulation of the mucous secretions from these lymph nodes. The expectoration of a glarry mucous or mucopurulent sputum is increased. Finally as the mucous glands become impaired the watery elements become decreased and the mucous becomes thickened with purulent and sometimes

caseous material, and the bronchus not infrequently becomes occluded. After an occlusion of the bronchus either by direct pressure or by inspissated mucous there is the collapse of the lung tissue supplied by the bronchus. Sometimes the lung tissue may not be permanently damaged. Prompt surgery or even a gradual recovery might allow the lobe to re-expand. On the other hand there may be a retrograde process that spreads bacilli throughout the collapsed lobe resulting in focal tubercles throughout, or there may be a diffuse fibrosis that may become caseous or may contract and heal, pulling the lobe into a small fibroid mass. This condition is no doubt what Bernard described as "lobitis" when it applies to the upper lung lobes. It happens about ten times as frequently in the right upper lung lobe as in the left.

Sometimes the lymph stasis may become so extreme that a pleural effusion may result. As with atelectasis, it may clear up as the lymph node process clears or as the lymph circulation is reestablished.

In addition to the tubercles formed in the mucosa from an exogenous source, tubercles may arise from the tuberculous process within the lymph node. These tubercles do not appear from those originating from without.

The most dangerous situation that arises from the tuberculosis in the lymph nodes however, is the caseation of the bronchial wall and a rupture of the lymph node into the bronchus or through both bronchus and esophageal wall into the esophagus. They may also rupture into the mediastinum where abscesses may be developed. A spread to the whole lung by the bronchi is the most common result of a lymph node rupture.

Apart from the ordinary tuberculous lymph nodes there are enlarged nodes due to the combination of tuberculous-silicosis which so frequently accompany silicosis of the lymph nodes and the lung. It has been estimated that practically 90 per cent of silicosis patients die of tuberculosis. The silicosis may develop before the tuberculosis, it may develop simultaneously with it, or it may develop after the tuberculosis has been established. There is a considerable difference in the pathological picture as well as the clinical and X-ray manifestations of these three types. In the type with the silico-

sis established before tuberculous infection there is apparently a central core of silicotic whorls in the lymph nodes, with a superimposed caseation and calcification around the outside of the node. This calcification frequently appears much like a shell surrounding an egg, and as a result has been termed "egg shell" calcification. Of course, the same process may occur from the two diseases formed simultaneously.

As a general rule, however, when the two diseases form simultaneously there is a blended picture between the silicosis with the tuberculosis gaining ascendancy rather quickly and the patient progressing rather rapidly to a fatal termination. These cases always offer difficulty of diagnosis because they simulate straight tuberculosis so closely that clinical or X-ray findings are not able to distinguish them, and even pathological and chemical findings are sometimes vague and only borderline in character.

In the group where the silica exposure has taken place on top of a latent tuberculosis, the X-ray, clinical and pathological findings are liable to be found most commonly in the region of the old tuberculosis. In this particular combination I have occasionally seen silicosis confined to the apexes of the upper lobes or even in a particular bronchial ramus. The cause seems to be that the disease damages the bronchial cleaning facilities and permits the accumulation of a greater amount of silica.

As the silicosis progresses to the second stage the lesions in addition to forming in the lymphatics may be seen within the lung parenchyma. They begin as small foci within the smallest lymphoid centers, or they may form around the accumulation of phagocytes in the intra-alveolar spaces. If the tuberculosis is superimposed upon the silicosis the parenchymal nodule will develop a capsule of a more recent type of fibrosis with thinner fibers and fibrils which usually become caseous. If the process is simultaneous with tuberculosis the nodule is usually large and may become tumor-like in size, but remain like a large tubercle in appearance. Furthermore, it may ulcerate into a cavity. The roentgenological aspect of silicotuberculosis reveals larger nodules with variations in the density. Sometimes they show definite calcification and in general the lesions

have an irregular soft border. That is, they simulate a shadow more like that produced by tuberculosis than silicosis.

Along with silico-tuberculosis you may include asbestosis, which is less prone to become tuberculous, but Gloyne has reported that about 50 per cent of his cases become tuberculous. The fundamental pathology of asbestosis is that the fibres become lodged in the smaller bronchioles and there is a fibrous bronchiolitis with a more diffuse fibrosis extending out from the bronchioli. This gives an X-ray picture of a diffuse ground glass appearance out from the hilum in the bases. When they become tuberculous there is not a great deal of difference in the progress of the two diseases than that which has been described for silicosis.

Another type of industrial disease is that produced by "inert dust," namely, coal and iron, and perhaps certain others. They are "inert" because they act more as a foreign body than an irritant or a toxic agent. The inert dusts in general affect the tuberculosis favorably. They seem to work just the opposite to the silicosis and prevent the spread of the infection. Instead of causing the bacilli to be more virulent or progress more rapidly, they seem to slow down their progress. Large quantities of inert dusts, however, are by no means indifferent, because they produce damage in another way. The dust seems to cause a packing of the lymph nodes with free dust and dust-laden phagocytes, which seem to result in a lymph stasis. This condition leads to a lowered resistance of the tissues and is prone to lead to infections with the pneumococcus, streptococcus, and other more rapidly growing microorganisms.

Without wishing to complicate the picture unduly, I must point out the fact that various types of dust may be and frequently are found in intimate association. Scarcely any coal miner is free from silicosis, and scarcely any silicotic is free from iron, coal, or some other dust. The resulting pathology and clinical findings, however, may be evaluated on the basis of the amount and quality of the various dusts involved and the amount of and the time when tuberculosis or other infections entered in.

Not infrequently these combinations of dust and disease result in the formation of tumor-like masses described for tuberculous silicosis but where dust particles

are enmeshed in the fibrous tissue and caseation. The tumor-like masses appear grayish if the process is tuberculous or silicotic; reddish if iron predominates, and black if coal is the chief dust present. Mixtures of all types may be present. On roentgenological examination these masses appear first as loosely arranged clouds then they become more discrete.

The whole subject of pneumoconiosis may be summarized as a complex of many related diseases which consist on the one hand of irritant, that produces fibrosis (silicosis and asbestosis) predisposing to tuberculosis; and on the other hand, the inert dusts (coal, iron, etc.), slightly retarding tuberculosis but which predispose to acute infection. All combinations of these may occur. When coupled with different degrees of healing and stages of the respective diseases it gives a complex picture.

In practically all of the diseases complicated by dust there are varying degrees of emphysema. This is due perhaps first to the toxic effect upon the elastic tissue and the resulting dyspnea and a direct strain due to the stretching resulting from stertorous breathing. As a result of this emphysema there is almost always a damage to the right side of the heart. Many cases of silicosis and silicotuberculosis die as a result of the failure of the right ventricle.

There are many causes of emphysema besides silicosis, but the most important from the standpoint of tuberculosis is that resulting from the healing of a tuberculous lesion.

The emphysema develops apparently as a result of damage to the elastic tissue by the tuberculo-toxin. No tuberculosis fails to produce damage to the elastic tissue. This emphysema may become so extensive that there virtually results a cystic lung, and like the heart in silicosis the patient may die as a result of the failure of the right side of the heart.

As a common condition bronchiectasis is practically always present in various pneumoconioses and especially in the terminal pulmonary tuberculosis. The disease itself is too vast and extensive to discuss fully in this type of presentation, but it may be remarked in passing that there have been considered two or three fundamental causes of the condition. First there is an irritation that causes a weak-

ening of the bronchial wall through an infection or a toxemia. Second, there is an increase in the intrabronchial pressure with a cough or dyspnea, and there may be independently or simultaneously a traction due to pulling of fibrous tissue around the bronchi. The peribronchial effusion also assists in forming bronchial dilatation because the intrabronchial pressure at the point of the effusion is always greater than the extra bronchial pressure, that is, the peribronchial pressure is not transmitted through the liquid as it is through an air cushion.

There are many other complications within the thorax that could be mentioned, for example the many different conditions that may involve the pleura, such as broncho-pleural fistulas resulting in empyema; the various forms of pleuritis and the many conditions that may involve or extend into the mediastinum. Sufficient has been presented, however, to show that there are many collateral conditions of tuberculosis within the thorax which are of major importance to those who are interested in chest diseases. When these complicating factors are better understood, it will remove some of the principal obstacles in the way of understanding the disease as a whole.

While there has been no attempt made at completeness, enough has been presented, I hope, to assist the general practitioners in obtaining a better understanding of the various diseases involved and in order to be better able to meet some of the problems that confront them in tuberculosis. The future of tuberculosis control depends upon the physicians in the practice of medicine because they see or can see tuberculosis long before any one else. In fact, they are the only ones that see the disease early and in its most manageable stage. In addition to refreshing the minds of those specializing in tuberculosis, therefore, this brief report is dedicated to the principal group of men who are able to find the disease in its early stages, the practicing physicians.

If anyone asserts that it is just to render to every man his due, and if he understands by this that what is due on the part of the just man is injury to his enemies, and assistance to his friends, the assertion is that of an unwise man. For the doctrine is untrue; because we have discovered that in no instance is it just to injure anybody.—Plato.

THE PUBLIC HEALTH POSSIBILITIES OF RURAL AMBULATORY PNEUMOTHORAX

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Glasgow

The past five years have been devoted to the treatment of tuberculosis in a rural community without sanatorium facilities. A general hospital has been available for short periods of hospitalization of those requiring it. Although this does not approach the ideal of treating tuberculosis in a sanatorium, as yet there are not and for many years to come will not be sufficient sanatorium beds in the poorer states for the tuberculous. It has been our experience that those patients contacted in early stages do well with pneumothorax and those that come late following a diagnosis are oftentimes too far advanced for ambulatory pneumothorax. Therefore, for the most successful results, a plan would have to be followed that would bring the early cases into the clinic.

A plan that would be much less expensive than building and maintaining a sanatorium would include a central clinic for the diagnosis and treatment of tuberculosis, a visiting nursing staff, a public health medical and nursing setup in each county trained in finding early tuberculosis and sufficient hospital beds available for emergencies, complications, surgery and temporary stages of treatment. The central clinic should be in the charge of a specialist trained in diseases of the chest and its surgery, and there should be complete cooperation between this clinic and the public health setup.

Although we have not had the advantages of facilities as mentioned above, the results with facilities available are encouraging. Twenty-six of fifty cases reported herewith came to the clinic six months to several years after the original diagnosis had been made. Therefore, we had a large number of far advanced and near terminal cases with which to begin. Even a few of these have been converted into cases with a favorable prognosis. Had we contacted these cases immediately after the original diagnosis, no doubt a good percentage would have been in the moderately advanced group. In those cases contacted before the disease

became far advanced the results are satisfactory and compare favorably with the same type of patient treated in the sanatorium.

ANALYSIS OF CASES

Fifty cases of ambulatory pneumothorax have been studied. Of this number thirty were far advanced, fifteen moderately advanced, one minimal, and six had pleurisy with effusion. In the effusions one was moderately advanced and one minimal. Of the thirty far advanced cases six are apparently arrested, six improved, four unimproved, and fourteen dead. Of the fifteen moderately advanced cases seven are working, four apparently arrested, two improved, one unimproved, and one dead. There was one minimal case and this patient is working at the present time. Of the cases of pleurisy with effusion two are working, two apparently arrested, one unimproved, and one dead. There were ten cases of bilateral pneumothorax of which four are apparently arrested, two improved, one unimproved, and three dead. Nine of these fifty pneumothorax cases were colored, and two of these are working, one improved, and six dead. Of the total number of patients nine, or eighteen per cent, are working; twelve, or twenty-four per cent, are apparently arrested; eight, or sixteen per cent, improved; five, or ten per cent, unimproved, and sixteen, or thirty-two per cent, dead. According to number of sides collapsed, 32.5 per cent of the unilateral and 30 per cent of the bilateral cases died. According to race, 24.4 per cent of the white and 66.6 per cent of the colored patients died. Four of the colored patients were far advanced, but in spite of this they did well for a short time. Colored patients gave evidence of responding well to pneumothorax if found early enough. One colored patient did not respond well to bilateral pneumothorax.

Forty-five patients in the beginning had a positive sputum. There are sixteen dead, but of those living only ten have a positive sputum and twenty have been converted to a negative sputum. In other words, 44.4 per cent of the original positive sputum cases or 66.6 per cent of the present living positive sputum cases have become bacilli free and are not a menace to their contacts. In the fifteen moderately advanced cases all had a positive sputum in the beginning, but now there are only three positive sputums and one dead patient.

COMPLICATIONS AND ACCIDENTS

The complications encountered during the treatment of these patients that may be directly or indirectly related to the pneumothorax were one contralateral spread of disease, two bronchopleural fistulas with tuberculous empyema, one of which died and the other improved, and one tuberculous empyema. The accidents consisted of one sudden death, one air embolism, one massive collapse, and one spontaneous pneumothorax. There were only two fatalities in these complications and accidents, namely, one bronchopleural fistula followed by a tuberculous empyema and later a tuberculous pneumonia. The other was the sudden death in a unilateral pneumothorax occurring at home three days following the last treatment which was uneventful. It was conjectured that the opposite and good lung may have collapsed spontaneously. Under the accidents, the case of sudden death cannot definitely be accounted for; the air embolism occurred in a patient during treatment without obtaining satisfactory oscillations; the massive collapse occurred in the right lung in a bilateral pneumothorax case on the operating table following a left phrenic crushing; and the spontaneous pneumothorax occurred at the initial bilateral pneumothorax treatment of a patient who received her treatment in the clinic and returned home. There were three complications and two accidents in forty unilateral pneumothorax cases compared with one complication and two accidents in ten bilateral pneumothorax cases. Two of these complications and accidents may be attributed to mistakes made by me and one of them due to the lack of cooperation of the patient and five unavoidable.

Before going further we should mention that seven phrenic crushings, one scaleniotomy, one scaleniotomy and phrenicoplasty, two thoracoplasties, two extrapleural pneumolyses with paraffin plompage and one oleothorax were used as supplemental procedures to accomplish the desired results.

DISCUSSION

Since over half of these patients had had a diagnosis several months before, they were referred or came of their own accord to the clinic, it naturally follows that the general practitioner will have to play the chief role in early diagnosis. It has been observed that the young phy-

sicians who come from schools that give organized training in tuberculosis to their students are much more likely to refer their tuberculous patients for treatment immediately after a diagnosis. If the proper setup were made available in a group of counties, a very valuable public health work could be done (by a tuberculosis unit) in a rural community without sanatorium facilities. This would probably receive more cooperation from the general practitioners than a private physician doing tuberculosis work. There should be sufficient hospital beds available for hospitalization of the surgical cases and to take care of complications, accidents and temporary stages of treatment.

Tice has pointed out the public health value of the ambulatory pneumothorax clinic in a large city. He states that in communities of any size and racial texture, a well organized plan of ambulatory pneumothorax should result in the closure of an appreciable number of open cases and a consequent improvement in public health. Tice's report of his experience had as a background all necessary facilities and training. The cases and results reported herewith are without practically any of these facilities available. It is obvious that a setup in the rural areas patterned after some such plan and with a few beds or a small sanatorium for necessary cases of hospitalization or transitory periods of treatment could do much to eradicate tuberculosis until the more expensive sanatorium bed is available to every victim of the disease.

Experience in ambulatory pneumothorax in a rural area impresses particularly the need for (1) A complete setup for case finding and early diagnosis, (2) Cooperation of the general practitioner who generally sees the cases first, (3) A diagnostic and treatment center, (4) A nursing personnel for follow-up observation of patients, (5) Available beds for hospitalization when necessary, and (6) An available chest surgeon.

CONCLUSIONS

Unilateral and bilateral ambulatory pneumothorax in the hands of trained specialists may play a great role in overcoming tuberculosis in the rural areas until sufficient sanatorium beds are available.

Old people on the whole have fewer complaints than the young; but those chronic diseases which do befall them generally never leave them.

EXHIBITS OF THE SOUTHERN MEDICAL MEETING AT MEMPHIS

NOVEMBER, 1939

MISCH CASPER

Louisville

The South is very much interested in the question of malaria, which still takes its annual world toll of a million persons. What is surprising is the fact that 4,500 die annually in the United States, malaria being especially common in the southeastern states. The three M's of malaria in one exhibit were: Marshes, Mosquitoes and Malaria, the trio that kills hope and saps ambition in many communities. There are on the market many new drugs for the treatment of malaria, but we are cautioned not to forget that quinine is still the specific drug for cure of this disease.

One exhibit featured arteriosclerosis. We cannot keep from getting old, but we can do something to check premature senility. Choline was recommended for this purpose, 40 mgs. and up to be given daily.

Many of the exhibits we have already reviewed in previous notes. One new one showed corneal transplantation from the enucleated eye of stillborn (fetus must be past six months) or cadaver. The cornea cannot be held longer than ten hours for this purpose. The exhibit claimed a result of takes to be 86% in favorable cases.

Administration of synthetic androgenic substance by implantation of pellets of the drug into the muscles of the leg has practical value, as male hormone treatment now has distinct indications and great clinical merit. A special syringe with a trocar point was shown for the injection. Only one dose has to be given every six months.

Unusually lifelike moulages of malignancies and other lesions were shown in natural size and color, also lesions in the original form and after treatment. Moulages are made by a combination of wax, gum, paraffin, and coloring, and are a great advance in teaching medical students, being almost as good as seeing the clinical lesions themselves.

There were two exhibits on gout. This subject, though an old one, is still alive and any community may show a case now and then. A good formula given is sodium salicylate gr. 15, sodium iodide gr.

15, and colchicine, gr. 1-100. This combination is put up in 20 cc. ampules (Lilly) to be given every eight hours for pain. Usually one every twenty-four hours will give relief. Cinchopen gr. 5, every four hours only two days each week, is given in addition. Keep the patient off purine-forming food. Protect the liver, kidneys and heart.

The exhibit on the tobacco habit reported its effect on longevity, metabolism, and the circulatory system. It shortens life, lessens stature, increases metabolic rate, and affects the nervous system, raises systolic blood pressure, increases pulse pressure, and lowers pulse rate. (There was nothing indicated as to possible degenerative effect on the organs from nicotine, lead, arsenic, and so on).

A very comprehensive exhibit on delirium, its interpretation and treatment, was emphasized with flickering lights. Delirium is multiform, and is closely kin to toxic psychosis and confusional states caused by many diseases (as all diseases put out toxins). Other agents as causes are: chemicals (drugs) and exhaustion (malnutrition). Even in prolonged recumbency delirium is an entity running a regular course along the same lines, no matter what the cause. Treatment: Treat causative process early. Do not use drug sedatives unless necessary to prevent exhaustion. Valuable agents such as insulin, glucose and salines overcome malnutrition, and are given together with a high caloric diet and vitamin content.

The exhibit on gross pathology of bones contained a very large collection of dried bones, showing every conceivable kind of pathology to which bones are subject. Each lesion being labeled, the study was simplified a great deal. This was an exhibit in which one could very profitably spend much time.

X-ray treatment of pneumonia was shown as a new and valuable adjunct to serum, sulfapyridine, and other established treatments. Thirty-four were treated with this combination with only two deaths, both of which had blood stream infections. More recently, in a preliminary report on sulfathiazol in the treatment of pneumonia, it has been found that sulfathiazol is equally as effective as sulfapyridine, and has the following advantages: (1) more equally absorbed, (2) more equal acetylation and also much less

(because the liver acetylates sulfapyridine in its attempt to detoxify, a toxic compound results); it is this acetylated compound that is toxic, (3) less toxic manifestation, (4) less sudden drop of temperature, (5) less vomiting and nausea, (6) not so marked lowering of W. B. C., (7) less hemorrhagic manifestation in the urine. The product is not yet on the market, but experiments are being carried out at the University of Pennsylvania School of Medicine.

Stilboestrol, a new activatory of estrogenic hormone, was advanced. Made synthetically, it is not yet on the market. We have been using it, and it is a very potent agent, which will be a valuable aid as a supplement to older forms of hormones. It will also be much less costly, a great practical advantage to both doctor and patient.

Vitamin K is advocated in hemorrhage of the newborn. This condition is one of hypoprothrombinemia. Vitamin K acts very much in these cases as it does in hemorrhage accompanying jaundice.

At the last few meetings, as at this one, there was shown an instrument that someone described as looking like a miniature lawn mower, but it is for making what is known as a calibrated skin graft. It is a new principle, and thus a new type of apparatus. It looks a little awkward now, but from the exhibits and results shown, it is sure to have some practical value.

PROGRAM

One of the guest speakers, in giving the surgical treatment of disease of the biliary tract, spoke of differentiation between gall bladder conditions and high, retrocecal appendix. He stressed being conservative by closely watching for possible rising of the white blood count. He stressed the fact that we have very few cases of bleeding in jaundiced patients since the advent of the use of Vitamin K. Also, he cited the phenomenon that oxalic acid increases in the blood of mother and baby during gestation. This agent may be useful in handling jaundice cases. Also, in jaundice cases, if in doubt, open the common duct, especially in cases of small, contracted gall bladder, or dilated common duct. To prevent complications change the patient's position frequently and use duodenal suction. A colored motion picture of the operative procedure was shown.

An odd condition was reported of intussusception of the appendix into the cecum. The symptoms may be similar to intussusception of the ileum into the cecum, the chief symptoms of both being bloody stools with colic out of proportion to other symptoms. Sometimes the appendix may be felt as a pencil-like mass through the walls of the cecum. Eighty-four cases of this type were found in the literature.

Another interesting paper was given on the surgical treatment of high-lying malignant lesions of the stomach. Such cases often require complete removal of the stomach. Sometimes resection of 2-3 of the stomach may get all the lesions. The symptoms of high-lying extensive carcinoma are not gas, certainly not pain, but anemia and debility. The lesion is in the silent area, mid-gastric, and prepyloric with glandular involvement. A high grade of ulceration is usually present. X-ray gives a fair idea of the size and location of the lesion. Age itself is not a contraindication to operation. Large lesions also are common, and are not contraindications to operation. Much pre-operative treatment is necessary in these cases, including proper diet, HCL, gastric lavage, glycogen, transfusion, and other treatment for anemia, also fluids enough to overcome dehydration. The anesthesia is usually nupercaine, given spinally with infiltration in the abdominal wall along with splanchnic anesthesia. Cyclopropane very often has to be used supplementally. This combination of multiple anesthetic agents is valuable for any patient who is a bad risk. Postoperative treatment is necessarily of great importance.

A practical paper on the prophylactic use of tetanus antitoxin with an analysis of 500 cases was an important contribution. The essayist advocated intradermal use of 1-10 cc. pure serum to test the sensitivity of the patient. One in twenty patients must take the antitoxin in divided doses; 76 cases in the 500 had serious sensitivity to the antitoxin, 30% of them had had the serum before. There was a delayed reaction in 56 cases, the delay being from a few hours to ten days. Serum sickness occurred in 4.5%, urticaria being a chief symptom. The patient is usually much alarmed, but can be reassured, and the symptoms controlled, usually with calamine and phenol locally, along with adrenalin 3 to 10 min-

ims slowly, ephedrine and phenobarbital. It is important to get a history of allergy; asthmatics are prone to be sensitive. 10% of the cases had never had serum before; 44% had had prophylactic serum; and 20% had had other serum. In the series no deaths occurred, though death certainly does occur rather frequently. The speaker estimated that the mortality is greater than 50%, and that about 1,500 deaths from tetanus occur annually in the U. S. The recently introduced toxoid may be an improvement in the treatment of tetanus. (In the last month histaminase has come into use for anaphylactic shock, and will prove of great benefit in combating this condition, which often complicates use of antitetanic serum).

A big subject of discussion was the chronic female pelvis, with illustrated case reports and lantern slides. The essayist said that he had abandoned complete hysterectomy, and even likes to leave enough endometrium for the patient to menstruate. He uses a simplified abdominal incision. He gives estrus hormone during convalescence, two or three times weekly. According to his estimation the life of the ovaries is about four years after hysterectomy. He feels that the tendency is away from big operations, with simple ones for simple conditions being preferred, even though repeated operations are made necessary. In discussing these subjects, we advocated more careful postnatal care, with examination of all patients about the third week after the birth of the baby, including a complete urinalysis. We emphasized conservatism on the organs of these women, the more particularly on the younger ones.

The effect on the abnormal ovary of hormone obtained from pregnant mare's serum was given in a splendid paper. The essayist stressed its use in amenorrhea, bleeding cases, and those showing lack of ovulation. Also, it relieved sterility in 24 of 43 cases. An observation for telling when a woman is in the act of ovulating is the fact that the rectal temperature falls to 95. This observation has not been confirmed, but is a practical point, if constant. The tendency is to give the serum in amenorrhea, and still larger doses for metrorrhagia, with frequent checking, of course, by biopsy, which shows secretory and glandular phases as indicated by the endometrium. This se-

rum is one of the most important of the newer hormones discovered, but has not been fully evaluated as yet. The essayist uses Upjohn's Gonadogen.

Another speaker reported 1,000 consecutive hysterectomies. He stated that the mortality is four times as great for operators doing only a few hysterectomies. The three great dangers that usually cause death are peritonitis, shock, and pulmonary embolism. With the trained surgical team, peritonitis very seldom occurs, so seldom that we do not see it any more. Shock is entirely preventable, if anticipated. Pulmonary embolism can even be reduced by hemoptysis and tying off all bleeding points; further by keeping the head low after operation, and maintaining the fluid level of the blood. Spinal anesthesia has been a great boon in making hysterectomy safer. Preoperative procedure includes correction of anemia. There should be at least 3,500,000 red blood cells, and a hemoglobin above 60 is preferable. Supravaginal hysterectomy carries lower mortality, though the cervix should be cared for by conization; also cancer of the cervix should be ruled out by biopsy. Loss of blood should naturally be prevented. In the operation all normal ovarian tissue should be conserved. We know more about the importance of this now since the advent of ovarian hormones in menopausal conditions. In hemorrhagic conditions in patients over forty, radium is a great asset. The essayist also said too many uteri were being removed before thorough treatment with endocrines.

A practical test and the reason for it was given on the subject of "an evaluation of glycogen-free epithelium of the cervix and vagina." The speaker advocated a formula of iodine (one part), potassium iodide (two parts), aqua (300 parts). This is not so strong as Lugol's solution and gives a more uniform Schiller's test. Though biopsy will show that most of these glycogen-free areas are not carcinomata, the test necessarily is not comparable to biopsy in accuracy. (Gynecologists do not rely on Schiller's test any more.)

An article on congenital absence of vagina and uterus included a report of three cases, with lantern slides and motion pictures. In cases of congenital absence of the vagina, the defect was for-

merly repaired by use of a segment of intestine. Now skin is being used. A metal or wooden prosthesis is used in the new canal to give the shape, size and depth. Sometimes additional pinch grafts will be necessary in hastening results. Skin adapts itself very well for use as a vagina, as it is squamous cell tissue itself, and nature is most helpful in adaptation of this sort.

Under the subject of tumors that complicate pregnancy we heard a practical paper, which stated that any practitioner may run into such cases. As they are always serious, they often demand the best that is in the physician to get the patient by safely. Such tumors are usually myoma, cystoma, or fibroma, the last being the most common form. About 1% of the series had such complications in the first pregnancy, most often in patients past thirty-two years of age. The essayist said cesarean section was the best way to deliver these cases. The submucous form of fibroid is very prone to undergo necrosis and cause miscarriage, and this form of fibroid usually causes sterility. Necrosis may be due to pressure, shutting off the circulation, and may be a serious symptom because of acute abdomen. Sometimes very large ovarian cysts occur, and they can be safely removed before delivery. The best time is between the fourth and fifth month of gestation. Toxemia of pregnancy occurs in about 45% of pregnancy cases complicated with fibroids. One of the discussers of the paper remarked that 80% of tumors of the first pregnancy are dermoids.

The Southern Medical voted to have its 1940 meeting in Louisville. The President for that meeting will be our own efficient A. T. McCormack. We have been watching him in action in medical meetings for more than forty years, and have always found him on his toes. We are sure, therefore, to have one of the best meetings in the history of the Southern Medical. Let us all get behind our President with a large attendance.

Albuminuria is the most common type of toxemia caused by pregnancy. It usually occurs during the last two months and 60 to 70 per cent of the cases are primigravidae. Albuminuria discovered before the 28th week suggests chronic nephritis.—The Abnormal in Obstetrics.

STERNAL MARROW BIOPSY: METHODS, INDICATIONS AND LIMITATIONS

HAROLD GORDON, M.S., M.D.

Louisville

Biopsy examination of sternal marrow has become a common procedure during the past decade. Its availability however, has made clinicians careless of observing its indications. As a diagnostic and prognostic procedure, the method has certain definite limitations which have not been advertised nearly as widely as has its virtues. Any clinician can determine for himself the need for sternal biopsy by answering honestly the following questions: (1) Have all the usual methods of examination been performed? (2) What additional information do I anticipate from an examination of the sternal marrow? Obscure hematologic conditions cannot be diagnosed and should not be treated unless and until an adequate history is obtained and a thorough physical examination made. It is not sufficient to ask the patient a few cursory questions as to the nature and duration of his symptoms. And a "complete blood examination," whatever that may imply, cannot compensate for an inadequate clinical investigation. Clinicians have no right to expect the clinical pathologist to act as a convenient short-cut to the diagnosis or as a sign post pointing to the correct management of diseased conditions.

The virtues of sternal biopsy may be very simply set forth: It may be a guide to diagnosis, to therapy and to a more complete appreciation of the pathogenesis of hematologic conditions. It may serve to corroborate the clinical diagnosis and point the way to an accurate prognosis. Under certain conditions it may be a sensitive biologic indicator of the effectiveness of specific hematologic agents whose activity may be in question. Each of these factors will be considered in detail.

METHODS

Two general methods are available for obtaining sternal marrow aspiration and trephination. Each has certain advantages and disadvantages. The method adopted in any given case will depend upon the training of the hematologist, the facilities

available and the cooperation and intelligence of the patient.

The Aspiration Method: This may be carried out with an 18 gauge spinal puncture needle, cut 1.5 to 2 inches in length, with its point sharpened and re-bevelled on a carborundum stone. A file mark should be made 0.6 cm. from the tip of the needle or a movable guard provided. The usual site of puncture is in the midline, at the level of the second interspace. Whitby and Briton recommend gentle percussion over the sternum to elicit points of tenderness. These are said to indicate areas of active hematopoiesis. I have not been able to confirm this observation. The site selected is cleansed with iodine, alcohol and ether and infiltrated with novocaine. The needle, with stylet in place and its point directed cephalically at an angle of 45 degrees to the surface, is pushed through the outer cortex of the sternum. As a rule this portion of the sternum is about 0.5 cm. in thickness, hence the need of a mark or guard as suggested above. If the needle is rotated gently as it is being pushed in, the marrow cavity can be entered without the need of much force. Usually the operator experiences a sensation of sudden "give" as the cortex is penetrated. If there is no give when the needle mark lies flush with the skin, the stylet should be withdrawn, a tight fitting 10 cc. syringe attached to the needle and trial aspiration made. If no blood or marrow appears, the needle may be advanced cautiously or a fresh puncture site may be tried. Only rarely will it be impossible to aspirate any material because even if the marrow is replaced by fibrous tissue, blood will appear in the barrel of the syringe. It is not wise to aspirate more than about 0.5 cc. marrow because this amount is adequate for detailed study and if more is withdrawn, most of it will prove to be blood. Excessive hemodilution alters the quantitative value of the marrow cell count. This can be demonstrated experimentally; it takes a sizable piece of spongy bone to produce 0.5 cc. marrow, even with the aid of forcible squeezing of the trabeculae. The material removed should be cared for immediately, preferably without the addition of anticoagulants. Some of it is used to make a cell count of all the nucleated cells. A white cell pipette may be used for this purpose, the cells being diluted 1 in 200 with 2.0

per cent acetic acid and the count made with a standard haemocytometer. The average cell count is 700,000 nucleated cells per cm. mm. with this method. The remainder is used to make thin smears on clean cover-slips. The smears may be dried in air or in methyl alcohol. Drying in air is preferable because it preserves the erythrocytes, thus providing a check on the degree of hemodilution. The smears are stained with Wright's stain. The undiluted stain is left on for three minutes (using a watch glass cover to prevent precipitation), then diluted with an equal quantity of distilled water. The diluted stain is allowed to act for 6-8 minutes, washed off in water, and the cover-slips dried and mounted with balsam. A differential count is made, selecting the best smears and counting at least 1,000 cells. It is advisable to make the count from several different smears. It is convenient, also, to record the count on a mimeographed sheet, in the form of a "myelogram." This should list the cells in groups, according to their myeloid, erythroid, reticuloendothelial or miscellaneous origin and each group should have its cells listed in order of maturation. The myeloid group is made up of myeloblasts, premyelocytes, myelocytes, metamyelocytes, young and mature polymorphs. The erythroid group consists of megaloblasts, macro—, intermediate and micronormoblasts; the reticuloendothelial of reticulum and endothelial cells and monocytes; the miscellaneous of undifferentiated, unclassified and abnormal cells, megakaryocytes, lymphocytes and plasma cells. Space should also be provided for listing the total percentage of myeloid cells, the myeloid maturity index, the total percentage of erythroid cells and the erythroid maturity index. The M.M.I. is obtained by dividing the percentage of granular cells beyond the myelocyte stage of development, into the total percentage of granular cells at the myelocytic or younger stages of development. The erythroid maturity index is obtained by dividing the total percentage of megaloblasts and macronormoblasts by that of the intermediate and micronormoblasts. The importance of these determinations will appear in the later discussion. With the aspiration technic, comparatively few immature cells are dislodged and there is an admixture of circulating white blood

cells. The total percentage of myeloid cells is therefore greater than that of smears made from marrow fragments. With this technic the myeloid cells average about 60%, the erythroid cells 25%; the M. M. I. averages 0.7, the E. M. I. 0.3, and the myeloid-erythroid ratio 2.5, in healthy adult controls.

The trephination method consists of the removal of a small button of bone. The site of operation is prepared as for the puncture technic, except that wider novocaine infiltration is advisable. A small linear incision is made through the skin, subcutaneous tissues and periosteum exposing the outer table of the sternum. A sharp edged trocar with an inside diameter of 0.5 cm, is pushed through the cortex, using gentle pressure and a rotary movement. The trocar should have a file mark 0.6 cm. from its tip. When the mark is flush with the surface of the sternum, the trocar may be levered laterally and vertically until the small button of bone in its lumen is detached. Usually this button of bone is sufficient for examination; occasionally it is necessary to curette a few pieces of spongy bone in addition, using a small spoon curette. The defect in the sternum is filled with bone wax, the incision closed with fine sutures and the wound covered with a sterile dressing. The biopsy material should be cared for immediately. A portion of the spongy bone is teased gently in a watch glass to detach its cells. The cells so separated are measured with a hemoglobin pipette and diluted with nine parts of fresh serum, as recommended by Isaacs. A cell count is made from some of the serum diluted material and the remainder used for cover-slip smears.

All the nucleated cells should be counted. The average marrow count is 1,000,000 nucleated cells per cu. mm. with this technic. A few "touch" preparations are made from some of the bone fragments. The smears and touch preparations are stained with Wright's stain as described above. The bone fragments are fixed in formol, decalcified, embedded in paraffin and sectioned 4 microns thick. The sections are stained with hematoxylin and eosin and with a methylene blue, eosin-phloxin mixture (Gordon). Differential counts and myelograms are made from the smears, touch preparations and sections exactly as described for aspirated

marrow. With this technic the total percentage of myeloid cells averages 50%, the erythroid cells 29%, the M. M. I. 1.5, the E. M. I. 0.2, the myeloid:erythroid ratio 1.7 to 2.0, in healthy adult controls.

RELATIVE MERITS OF THE TWO METHODS

The aspiration method has the following advantages: It may be performed in the office, requires no special instruments or training. It is rapid, almost painless and may be repeated many times on the same patient. No special permission is required except in the case of minors, when parental consent is desirable. The method has the following disadvantages: It is almost impossible to avoid hemodilution of the marrow cells, so an accurate count is impossible. Many of the marrow cells are traumatized to such an extent that they cannot be identified. It is difficult to dislodge the large, "sticky" immature cells by simple aspiration and these are the very cells which often are the most informative. In any case the differential count is not fully representative or accurate. Body tissues and organs normally function intermittently, not continuously. This is true of bone marrow also. The amount of marrow obtained by aspiration is only a very minute fraction of the total marrow, which in bulk normally approximates the size of the liver. If the needle enters an area at rest, the appearances differ materially from those of an actively functioning area. There is experimental evidence that the marrow of the various flat bones functions as a physiologic unit but if the needle misses an area of active hematopoiesis, the aspirated material may be misinterpreted. Occasionally the sternal marrow is replaced by connective tissue and in old people is often fatty in character. In such cases simple aspiration will not yield material of diagnostic value. Aspiration removes only individual cells, no organized tissue, hence the topographical relationship of cells and interstitial tissue is not revealed by the puncture technic. This is a serious disadvantage when a metastatic neoplasm or a chronic infectious granuloma is responsible for the blood dyscrasia.

The trephination method has the advantages of yielding more material than the aspiration method; of revealing the histologic relationship between cells and interstitial tissue; of showing the pre-

sence of "resting" areas as well as foci of active hematopoiesis; of avoiding hemodilution; of avoiding trauma; of allowing the immature cells to be dislodged; of providing a better chance for the detection of infectious or neoplastic disease, fatty metamorphosis or connective tissue replacement; of allowing every type of examination feasible with aspirated material, plus histologic examination of tissue sections; the operation, also, may be performed in the office. The method is disadvantageous because it calls for special permission as for any operation; it necessitates an open incision; (but a small incision, properly sutured and kept sterile, will heal by primary union leaving no visible scar. The method therefore is applicable to women as well as to men). It is more painful than the puncture method and the material removed requires more elaborate preparation than the smears and the identification of immature cells in sections is more difficult and uncertain than in smears. The button of bone is small and may miss the causative lesion. In summary, the biopsy method yields so much more information than the aspiration technic, that it may be considered the method of choice.

INDICATIONS

Sternal biopsy or puncture is especially valuable for the diagnosis of obscure hematologic conditions. This is true especially in a leukemic leukemia without lymphadenopathy and in the early stages of leukemia (preleukemic phase), in which examination of the peripheral blood is often inconclusive and the clinical findings largely negative. Some cases of aplastic anemia, purpura and granulocytopenia also may be difficult of diagnosis; sternal biopsy may provide decisive evidence in these conditions. Occasionally puzzling hematologic syndromes are due to systemic disease with extensive bone marrow involvement. Among such causes of blood disorders may be listed the following: miliary tuberculosis, metastatic neoplasms, Hodgkin's disease and essential lipid histiocytosis. Sometimes sternal biopsy will reveal the presence of these as the underlying cause of the blood dyscrasia. It should be borne in mind, however, that if the involvement of the marrow is of a focal nature, neither biopsy examination nor trepanation may be conclusive, since a focal area may not

be included in the material removed. Sternal biopsy may be valuable as a corroborative diagnostic procedure. For instance, in hyperchromic macrocytic anemia the marrow is normoblastic and hyperplastic in appearance. This gives the clinician another lead and he can decide whether the anemia is pernicious, due to liver disease, protein deficiency or some other cause of a lack of the erythrocyte maturation factor.

The method is valuable also as an aid to prognosis and an understanding of pathogenesis. The widespread use of sulfanilamide and related drugs is likely to cause an increased incidence of granulocytopenia. Sternal puncture may provide warning of an impending granulocytopenia before this can be predicted from the peripheral leucocyte count. The presence of "toxic granules" in granular cells or a diminution of myelocytes presages a drop in the peripheral white cell count and is an indication to withdraw medication. Marrow studies have provided us with the modern concept of a threefold mechanism in the pathogenesis of granulocytopenia and some of the anemias—"maturation arrest," depletion of reservoir cells (true aplasia) and increased cell destruction in vivo. Custer differentiates between agranulocytic marrow of idiopathic and of "secondary" origin. In both the marrow is hyperplastic in the histologic sense. But in the former there is an increased percentage of myelocytes while in the latter there is a true hyperplasia shared by both the myelocytes and the more mature forms. In true aplastic granulocytopenia, myelopoiesis is depressed or arrested and the marrow gradually becomes hypoplastic. This is shown histologically by a decrease in myelocytes and younger cells as well as a decrease of maturing cells. In other words the M. M. I. is altered but little, since there is here no maturation arrest, but a failure of division. A similar mechanism may operate in purpuric conditions. Marrow studies have contributed to our knowledge of the mechanism responsible for polycythemia vera and may ultimately provide a solution to the problem of the "leukemoid states."

As a method of bio-assay, examination of the marrow may be extremely valuable. This is especially true in pernicious anemia and the macrocytic hyperchromic anemias in general, in which specific

hematologic factors such as liver extracts are commonly applied. The activity of the therapeutic agent may be in question. The marrow responds to such agents very rapidly and the marrow changes precede by several days the occurrence of a reticulocyte crisis. The value and activity of liver extract, for instance, may be predicted accurately and early if the bone marrow is examined. For this purpose and for warning of an impending "drug leucopenia," the aspiration technic is especially valuable. Sacks has recently drawn attention to the "investigating opportunities offered by bone marrow study" in vivo. Several hypotheses have been advanced to account for the success of splenectomy in some of the purpuras, its failure in others. Intensive study of the marrow may confirm one of these and lead to the clarification of these and other "primary" blood dyscrasias.

SUMMARY

Two methods, aspiration and trephination, of obtaining sternal marrow in vivo are described in detail.

The advantages and disadvantages of two methods are discussed.

A simple method of staining and examining marrow smears is described.

A method is described for the construction of a myelogram and the calculation of myeloid and of erythroid maturation indexes. These indexes and the myeloid: erythroid ratio provide important diagnostic and prognostic criteria.

Bone marrow studies in vivo are of value for the diagnosis, prognosis, investigation and understanding of the pathogenesis of disorders of the blood.

The reaction of the marrow provides a method for the bio-assay of specific hematologic agents.

Kidney Function: Normally the amount of waste products eliminated by the kidney averages between 35 and 40 grams daily. A kidney capable of concentrating the urine to a specific gravity of 1,030 is able to excrete the waste by utilizing only 15 cc. of water per gram. So under normal conditions 525 to 600 cc. of water are sufficient for the discharge of the body waste. If the kidney is impaired it loses its power of concentration and requires a greater quantity of water for excretion of waste. To prevent such a contingency it is recommended that sufficient water be administered to maintain a minimum urinary output of 1500 cc. at a specific gravity of 1.015.—*Surgery of Injury and Plastic Repair. Fomon.*

STREAM POLLUTION

HUGH R. LEAVELL, M.D.

Louisville

Pollution of streams deserves much more attention than it has had; and a much wider group intent on its elimination.

Dwellers on streams do the obvious thing in running their domestic and industrial wastes into those streams. Sedgwick, Massachusetts pioneer in sewage treatment, said, "natural drainage is in the direction of the river, which carries off water falling upon its watershed and anything that will float or mingle with the water." As sewers were constructed, they followed contours of the land, eventually ending in the stream draining the territory.

A small volume of sewage in a stream does relatively little harm if communities further along its course are not dependent on it for water supply. The old theory of "self-purification" was based on the obvious fact that although a very large amount of sewage might be suddenly poured into a stream at a given point so that at that point pollution was conspicuous and self-evident, it was only necessary to follow the stream for a short distance to see that the water had distinctly improved in appearance. Chemistry of the time confirmed this impression, since there was a reduction in organic matter and the products of decomposition. Relying on this idea, communities used water from sewage polluted streams. The result was a tremendous blow to public health, many water borne epidemics occurring. Since that time bacteriological methods have shown that bacteria do not disappear as readily as some of the materials studied chemically. Self-purification alone cannot be depended upon to solve the problem.

Pollution comes from a number of sources, household and domestic waste being the most obvious. Industrial waste adds a varying amount, in some communities more than the combined domestic sewage. By-products of distilling, slaughtering, and milk processing plants are especially troublesome. Certain communities have special problems, such as Danbury, Connecticut, where rabbit hair used

in making felt hats often clogs the city's sewage treatment plant.

Acid wastes from abandoned coal mines cause trouble in certain areas, the Ohio Valley particularly. Acid forms from the action of air on sulphur in the coal. It has been practically eliminated in many instances by sealing the mines to prevent access of air.

The effects of pollution may be divided into three main classes: (1) Affecting the public health; (2) Esthetic effects; (3) Economic effects.

1. Affecting the public health: Contamination of drinking water may produce an effect on a community as dramatic as an aerial bombardment. Numerous outbreaks of typhoid have followed the use of shellfish from contaminated beds. Bathers in polluted water not infrequently develop water-borne disease. And while bad tastes and odors are not in themselves usually harmful, they may lead people to seek other unsafe drinking water.

2. Esthetic effects: Markedly polluted streams emit offensive odors, and the discoloration and turbidity of the water is unpleasing. Actual solid material from sewers floating on the water produces most unfortunate effects.

3. Economic effects: A major economic effect of polluted water is the disastrous action on fish life. The sportsmen's paradise is destroyed, and food value of the fish is lost. Property values along a badly polluted stream decrease sharply; and harbors and navigable waters are deteriorated through the shoaling of settled material.

Methods of purification: In the purification process complex substances break down into simpler ones, reversing the development of plant and animal structures. Purification occurs through chemical action, but more particularly by the action of bacteria, and other small forms of life. Sedgwick says, "Sewage is alive with bacteria, harmful and otherwise, they attack the organic matter, decompose it, rob the stream of its dissolved oxygen, and keep up their ceaseless activities, either until their food supply is exhausted, or until they are destroyed. When conditions become unfavorable for the development of one group, another more adapted to growth and survival may take its place, and carry the ceaseless cycle of change one step further. But bacteria have their enemies, and where they are abundant,

predatory types of protozoa soon develop and prey upon them. These also perform their share in the purification of the stream; but they are soon invaded by their enemies, and so the endless cycle continues until the water is purified."

Another important phase of purification is sedimentation, in the course of which heavier particles of sewage sink to the bottom of the stream and undergo putrefaction in the absence of sufficient air to allow aerobic digestion. Putrefaction also occurs nearer the surface when the oxygen supply is depleted. Since water holds more dissolved oxygen cold than warm, temperature plays an important part in stream aeration. This is one reason why putrefaction is more common in summer than winter. Because of its important part in putrefaction, the presence of an adequate supply of oxygen is a useful measure of the sanitary condition of the water.

In artificial sewage treatment works, the same steps of sedimentation, bacterial action, aeration, and perhaps putrefaction are used under conditions which speed them up more than under natural circumstances. Treatment may be carried out to a greater or lesser degree, depending on the final purity required. Each situation has its own solution. For example, where a relatively large amount of sewage is discharged into a stream used for drinking or recreational purposes further down, treatment must be carried to its final stages, and water coming out of the plant may even be chlorinated. In another situation, the stream may be relatively large, with no community immediately downstream dependent on it for drinking purposes. In such a case, allowing the grosser pollution to sediment out might suffice, depending on natural processes for the remaining purification. The amount of available dilution is important in considering solutions for local problems; but in the vast majority of instances, dilution alone is not enough.

It is thus evident that ready-made plans cannot solve individual pollution problems. It is difficult to set up satisfactory standards indicating how far purification should be carried. And it is even more difficult to determine how the desired end is to be attained. A satisfactory answer to Cincinnati's problem might not work at all well for Louisville.

It is clear that individual communities

need assistance in working out the technical aspects of their sewage disposal needs. Both state and federal help may be required, especially in the case of an interstate stream like the Ohio. In many instances authority to require treatment will also be necessary.

Before discussing control measures further, we may consider conditions in the Ohio River, the stream of chief interest to us. During the fifteen years preceding 1930, the population polluting the Ohio increased one third. The navigation dams to provide a nine foot stage were completed about 1930, and they have also had a pronounced effect on the pollution problem in the river. It is now apparent that the dams have slowed the flow materially. With an open channel, the time of flow between Cincinnati and Louisville was often as short as 1.8 days. However, with the dams up during the low water of 1930, the time of flow increased to 58 days. It is important to recall that the dams may be raised or lowered to meet varying conditions of flow. During times of slow flow, sedimentation occurs, and sludge accumulates behind the dams. In other words, pools formed by the dams really act as sedimentation chambers would in a sewage treatment plant. During times of drought pollution is decreased throughout most of the course of the river.

When flow increases, however, the dams are lowered, and the accumulated sludge behind them is washed down the river, with a definite increase in pollution. Therefore, we have the rather anomalous situation of greater pollution when flow is greatest, and less when the water is low.

The action of the dams is not an unmixed blessing, though, as the sludge behind them apparently undergoes putrefactive processes not well understood. Ordinarily no harm results; but in times of drought there may be unfortunate consequences. In 1930 a wave of gastro-intestinal disorders spread down the Ohio Valley involving nearly all communities dependent on the river for their water supply, and sparing those using other sources. Careful investigation indicated the presence of some toxic substance or virus resulting from sludge decomposition; and that this substance had been washed out when the dams were lowered with return of higher water. Strangely enough, it was quite impossible to demonstrate the

nature of this somewhat hypothetical toxic material by any known chemical or bacteriological method. In fact, ordinary examinations of the water at the time of the epidemic showed it to be of unusual purity according to the accepted standards. However, epidemiologic evidence pointed rather inescapably to water as the causative agent.

Even with the usual bacteriologic methods it is quite possible to show that pollution of the river at times overtakes the filtration plants. Different types of water treatment naturally accomplish different results in purification. The efficiency of the various methods has been tested, and limits of safety set up for each. At certain points in the Ohio River these limits are exceeded a considerable portion of the time; and at a greater number of places, Louisville among them, safe limits are exceeded several times during the year. This is most likely to occur at times of rapid flow, when there is comparatively little time for sedimentation.

Enormous financial problems complicate the correction of pollution. Let us suppose some competent authority orders Louisville to install a suitable sewage treatment plant. After investigation, engineers report that a plant capable of producing the specified results will cost ten million dollars. But Louisville's permissible bonded indebtedness is strictly limited, and this limit is already nearly approached. Louisville finds itself in the dilemma of being compelled to do an expensive job with no legal way to obtain the requisite funds—to make bricks without straw.

Such situations are common to many cities. To make matters worse, a city which builds a treatment plant gets relatively little direct benefit; downstream communities are the ones profiting. In some cases such difficulties have been met by excluding the cost of sewage treatment from the legal limit of bonded debt. Other communities sell revenue bonds payable out of rents charged for the use of sewers—the rent proportionate to the amount of water used by the consumer. In other instances the Federal government may have to provide assistance in the form of loans, or grants in aid.

One financial fallacy often mentioned in discussing sewage treatment should be pointed out. Contentions that the process will pay for itself thru the sale of sludge

for fertilizer, or from selling the gas resulting from sludge digestion, are false. Some revenue may be derived from these sources, but not enough to pay for the treatment process.

Federal powers to control navigable waters and protect navigation arise under the commerce clause of the Constitution. These powers also apply to international boundary waters; and to control of the purity of drinking water on interstate common carriers. All these powers are well established.

Suggestions have recently been made to extend Federal powers to include abatement of pollution of other waters. The constitutionality of direct Federal action along these lines is questionable; and many feel that the Federal role should be that of stimulation, technical and financial assistance and coordination, leaving the actual abatement largely for local and state action. Senator Barkley is a leading Congressional advocate of this rather moderate course, and bills which he introduced have come very close to final passage and approval.

Former Senator Loneragan of Connecticut was the outstanding advocate of a more radical course. He favored bills defining pollution quite strictly, and providing for complete and rather immediate abatement of unsatisfactory conditions. His opponents did not doubt the desirability of such rigid and peremptory action, but questioned its practicability not only because sufficient information was lacking to set up standards; but because of the economic shock attendant upon trying to clear up the mistakes of generations in a very short time.

Up to the present, the only Federal legislation passed permits the formation of interstate compacts. Such a compact has been formed between New Jersey, New York and Connecticut; another by some of the states involved in the Great Lakes supply; and a third has been ratified by several of the states on the Ohio watershed.

Under the provisions of the Ohio Valley compact, a body is set up with representation from each of the states concerned, Illinois, Indiana, Kentucky, New York, Ohio, Pennsylvania, Tennessee and West Virginia with powers to make studies and order correction of unsatisfactory conditions. Each of the signatory states "agrees to enact any necessary legislation

to enable such states to place and maintain the waters of the Ohio basin in a satisfactory sanitary condition." This compact has been ratified by four of the states concerned, and will be brought before the Kentucky Legislature at its coming session.

States have the authority to abate pollution under the police power to protect public health. And a municipality or private corporation is liable for injury to private property or to another municipality as a result of sewage pollution. With these powers and liabilities well established, it would seem that the pollution problem might have been brought nearer to a solution than has actually been the case. However, the laws that have been passed have been largely ineffective because of exemptions, vague wording, limitations of taxing powers in communities concerned, etc.

The problem of stream pollution is indeed an enormous one; but a beginning must soon be made on a scale larger than any heretofore attempted. Otherwise, the danger will increase and definite outbreaks of water-borne disease may be anticipated.

SUMMARY

1. Matter of great importance, deserves attention of best citizens.

2. Natural that stream pollution should have occurred, due to drainage channels.

3. Self-purification of streams is not dependable.

4. Pollution comes from not one source, but many.

5. Pollution has deleterious effects on public health, the esthetic sense, and reduces economic values.

6. Purification occurs by natural means, but the process may be accelerated artificially.

7. No one solution of the purification problem is applicable to all situations.

8. Local communities need assistance both technical and financial from state and Federal levels; and there must be authority to compel action where the locality is unwilling to proceed independently.

9. Increase in the sewered population has augmented pollution of streams; this increase amounted to one-third in the Ohio Valley above Louisville between 1915 and 1930.

10. Construction of navigation dams in the Ohio has slowed the rate of flow and favored sedimentation, particularly in

time of low flow. But changes which apparently occur in the sludge behind the dams produce toxic material that constitutes a hazard of unknown proportions. These toxic changes are not susceptible to measure by the ordinary laboratory tests.

11. Financial problems connected with sewage treatment are enormous. Treatment may not be expected to pay for itself, and new means of financing treatment projects must be found.

12. There is little Federal help for local situations available under present laws, though PWA construction has been a beginning. Both a moderate assistance type of approach; and a more radical compulsory approach have been suggested for Congressional action. Meanwhile the interstate compact has given a basis for beginning interstate action on the problem.

13. State laws up to the present time have been largely confusing and have failed to accomplish their avowed purpose.

14. A great increase of informed public opinion, with sufficient interest and influence to compel action, will be necessary to bring the stream pollution problem under control.

DISCUSSION

R. Douglas Sanders: What effect do suburban areas using septic tanks have on pollution? I just left a board meeting discussing this with some feeling. I wondered if there are any figures on the subject. For instance, if there are one thousand people using these, what proportion directly affects the sewage?

Misch Casper: What can we do to have better fishing? Can Dr. Leavell tell some way to have better fishing in the Ohio river?

Hugh R. Leavell, (in closing): It is considerably less of a problem when sewage is filtered through soil instead of being discharged directly into a stream.

The fisherman's problem is extremely important. The food value of fish is considerable. It seems to me that the pollution problem is one that we in Louisville are going to have to find a solution for. I thought it was important to present it to members of this society. People ask doctors questions about this matter and it is something we ought to work out together.

Old persons endure fasting most easily; next adults; young people not nearly so well, and most especially infants, and of them such as **are of a particularly lively spirit.—Hippocrates.**

FORUM

Dear Editor:

There is a service I feel the Kentucky State Medical Journal can render the physicians of our State that will be of great value in the coming years.

One is, to call attention to the accident and health insurance racket that is going on and has been going on for years in this country. The thing that aroused my curiosity, and I might say a little of my Kentucky fighting blood, was when a representative of one of those so called accident and health insurance companies told me he agreed with everything I had said when I had denounced them for unethical and what I considered fraudulent practice. He said all kinds of efforts had been made to correct this condition, but the insurance company always wins out and have been able to prevent legislation that will protect the insured. Quite an admission and sufficient to have incriminated any criminal that appeared before a just judge.

The mutual life and accident insurance type of policy in certain companies, the frequent reorganization, the re-call of non-cancelable policies by one means or another, the assessment of premiums without the insured receiving a reason for same, no reports required by the State to be published of the actual deficits, the actual amount of insurance paid out for benefits, no opportunity to see whether they have balanced or not, the lack of the State to provide adequate inspection.—Let us not go back to our bank failures and the State and Federal inspecting system of same.

It is now public knowledge the criminal negligence that existed and maybe still is, in the State and Federal inspecting systems regarding our banks; but still more flagrant and more outrageous are some of the practices of insurance companies; and I think that a campaign to enlighten the physician who is the man, that regardless of Government, be that State or Federal, can to a large extent stop a good deal of this insurance "legal business," legally honest, morally most flagrantly dishonest.

I still believe that the majority of the medical profession are as honest a group of men, and may I say as fearless as exist. The majority are not interested in accumulating wealth, all they wish is to benefit mankind, with a motivating power for ideals of service and an adequate livelihood, but service being the prime purpose of the profession.

Might I say, I do not know of any group of men, with maybe the exception of the ministry, that is uniformly ignorant of our present existing conditions in insurance than the medical profession. I do not mean to infer that all insurance companies are dishonest, although I feel there are insurance laws covering certain types of insurance that should be changed in all com-

panies with certain definite restrictions on these companies and the rights of the insured guaranteed by law.

I would like to have your reaction to this letter for I feel quite sure that both the medical profession and the legal profession would express their opinions through our State Journal and call the attention of the medical profession to a phase of our practice which has been carelessly neglected and to which we have been a part in misleading the public and upholding practices that we fear are far from honest.

It is an interesting fact, in their advertising they accentuate the feature that a medical examination is not necessary, but we find a small rider depriving the individual of all rights regardless of the length of time he has been insured, being held by the company to cancel said insurance whenever they see fit. This is a false statement on the part of the insurance company for the settling of any claim is based on the statement of the medical profession in each and every instance.

Another interesting fact is that the public is not aware of the stool pigeon "the investigator" which comes around investigating "all circumstances connected with the case," and none but those who have had the sad experience of trying to collect indemnities know the difficulties that accompany the majority of these payments. In many instances the company tries to keep them from knowing or in any way obtaining any information regarding the investigation and the letters that transpire between the agent and the physician.

Sincerely yours,

R. Emerson Smith, M.D.

NEWS ITEM

On Wednesday, March 6, the inaugural Ephraim McDowell Lectureship of the University of Louisville School of Medicine was presented in the amphitheatre of the Louisville City Hospital.

The meeting was opened by Dr. John W. Moore, Dean of the Medical school. Dr. Irvin Abell, who is an outstanding authority on the life of Ephraim McDowell, gave a resume of the life and work of the great Kentucky pioneer surgeon.

Dr. M. Herbert Barker of Northwestern University Medical School delivered the inaugural lecture. He was introduced by Dr. J. Murray Kinsman of the University of Louisville. Dr. Barker's subject was "Modern Pioneers in Vascular Diseases."

The McDowell lectures are being sponsored annually by the Phi Beta Pi Medical Fraternity.

Those cases of epilepsy which come on before puberty may undergo a change; but those which come on after twenty-five years of age, for the most part terminate in death.—Hippocrates.

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NEXT MEETING: LEXINGTON
SEPTEMBER 16-19, 1940

EDITORIALS

REMARKABLE DECISION

The United States Court of Appeals for the District of Columbia on March 4 reversed a lower court decision in regard to the indictment against the American Medical Association, the Medical Society of the District of Columbia and several individual physicians. The lower court had dismissed the indictment on the ground that the term "restraint of trade" does not apply to the professions.

In its opinion, the Court of Appeals said "the fact that defendants are physicians and medical organizations is of no significance—at the heart of the litigation is the question whether the law against restraint of trade applies to the medical profession. We think enough has been said to demonstrate that the common law governing restraint of trade has not been confined, as defendants insist, to the field of commercial activity, ordinarily defined as 'trade' but embraces as well the field of the medical profession."

The details of the decision will doubtless be published shortly in the *Journal of the American Medical Association* and will be of interest to every physician of the State who reads this remarkable, and to us, this utterly incomprehensible decision. It remains to be seen whether it will be upheld by the United States Supreme Court.

It is difficult to foretell its effect on the practice of medicine—it is enough at this time, to say that as long as the medical profession keeps honorable within itself, and keeps on treating and curing sick people and preventing disease, even court decisions will fail to stop them because they are a public necessity. It has been said frequently that our courts are directed by those riding with the crupper instead of the bridle—decisions such as this make one wonder whether they are using either. If the purpose of the courts is to bring the ethics of the practice of medicine to the level of the trades, we confidently predict they will fail. It will always be true that "one cannot make a silk purse out of a sow's ear," but conversely, it is also true that one cannot make a sow's ear out of a silk purse.

After writing the above we have received in response to telegraphic inquiries, copies of the advanced sheets containing the full opinion in this case. Judge Groner's decision quotes in full as prima facie evidence of a conspiracy, a resolution adopted by the Medical Society of the District of Columbia. It is a fool-

ish resolution and it is difficult to understand how it could have been adopted by any medical society. However, when and if the case comes to trial, it is inconceivable that any court or jury will ever consider this futile resolution as a criminal conspiracy in "restraint of trade."

It is evident from this decision that the court made the deduction from the old English common law that the term "restraint of trade" applies to medical practice because it was used by the English courts in reference to sales of medical practice which frequently contained the provision that the selling physician could not practice in the vicinage involved. This appears to us to be a strained construction of the law, and an evident *non sequitur*. If the counsel for the American Medical Association takes this case to the Supreme Court, we would hope that Judge Groner's decision would be over ruled; but, if the case should be tried in the District Court, we cannot conceive that any judge or jury could convict the *American Medical Association* and its staff of any effort, even, of "restraint of trade."

The *American Medical Association* and its constituent and component societies have adopted dozens of varieties of various pre-payment plans for medical service, always with the preservation of the quality of such service as essential. For the courts to determine that medical service should be rendered, on any plan that would not give sick people proper care, is inconceivable.

The profession has lost a skirmish in its campaign for good medical care for the people of the United States but we need have no anxiety about the ultimate victory in this war, if we keep ourselves on the high plane of the Platform of the *American Medical Association* which we proudly re-publish in the first pages of this issue of the *Journal*.

REMINISCENCE

The Kentucky Medical Association met in Owensboro in 1897. The Honorable Reuben A. Miller, a very distinguished attorney, and former State Inspector and Examiner, concluded his address before this Association entitled, "The Family Doctor," as follows:

"There is no fact in the history of that classic land, there is not a legend in song or story, not a dream realized in her imperishable marble, nor a passion caught in the immortality of her paintings that can deserve to survive the record made by him who is called the Father of Medicine. I cannot refrain in conclusion, from con-

gratulating you and the people of Kentucky as well, on the superb organization which your society has effected, and on that most admirable 'esprit de corps' which marks its action and gives promise to its future. It is a most auspicious sign and it should be hailed as the harbinger of still greater usefulness to the people who are, and must ever be, the grateful beneficiaries of your labor."

SPECIAL COMMITTEE

Pursuant to a resolution introduced by Dr. J. D. Northcutt, Covington, second by Dr. C. W. Hibbitt, Louisville, and passed in the final session of the last meeting of the House of Delegates of the Kentucky State Medical Association at Bowling Green, Dr. John W. Scott, President, has appointed the following to serve on a Special Committee:

E. B. Bradley, Lexington, Chairman
J. D. Northcutt, Covington
Oscar O. Miller, Louisville
J. G. Gaither, Hopkinsville.
K. S. McBee, Owenton.

It is suggested that any members of the Association interested in the matter referred to this committee communicate with one of its members or the Chairman. The scope of this committee's work, and the discussion leading up to its appointment will be found on page 549 of the November, 1939, Kentucky Medical Journal.

PHARMACOPOEIAL CONVENTION

The House of Delegates at the Bowling Green Session selected Drs. Virgil E. Simpson, John W. Scott and Siegel Frankel as delegates to the decennial meeting of the Convention for the Revision of Pharmacopoeia which will be held in Washington, D. C., in May. Following Dr. Frankel's death, the Council unanimously selected Dr. J. Murray Kinsman to fill his place. The alternates are as follows: Dr. John Harvey, Lexington for Dr. Simpson, Dr. R. Emerson Smith, Henderson for Dr. Scott and Dr. Luther Bach, Newport for Dr. Kinsman. This convention will select the Revision Committee. For the past ten years, Kentucky has been represented on the Revision Committee by Dr. Virgil E. Simpson, and it is suggested that you communicate with him in regard to any recommendations you may have in regard to the contents of pharmacopoeia. This is one of the most important scientific undertakings in which the medical profession participates and every practicing physician should keep himself in touch with its developments.

SPEEDING UP TUBERCULOSIS CONTROL

Under this caption Dr. Thomas Parran, Surgeon General, United States Public Health Service, recently gave to the National Tuberculosis Association a statement which constitutes both an inspiration and a challenge to the medical profession.

Dr. Parran likens the tuberculosis control program to a modern train leaving the railroad station in a great city. "I like," says he, "to watch a train leaving the railroad station. The mass of steel begins to move slowly and gradually picks up speed until the labored puffs of the engine smooth out to a swift, even rhythm. When sufficient momentum has been gained and with a clear track, the engineer gives her full steam ahead and speeds to the end of his run."

Drawing the analogy between this and the tuberculosis control program, Dr. Parran says, "The movement to control tuberculosis is something like that. Because of the momentum gained in the past years, we now are ready to open the throttle wide. Our present reserve of power and the clear track ahead promise sure arrival at our goal. That goal is to conquer tuberculosis so completely that its load will never again burden us and our children."

Every physician is familiar with the facts concerning tuberculosis control. We all know what the contributions of Koch, Trudeau, Roentgen and others have done to place the treatment and control of tuberculosis on a firm, scientific foundation, despite the fact that there are yet some unknown factors to be determined. The epidemiology of tuberculosis is so firmly established that we are no longer groping blindly in the dark; we can now approach tuberculosis with a definite certainty because of the things we do know about it.

Dr. Parran continues, "during the last 50 years, we have learned how to treat tuberculosis better. Sound principles of treatment, the main ingredient of which is rest, are everywhere understood and applied. New ways of resting the lung by simple surgical procedures have been discovered. The sanatorium is now a fully equipped hospital. The doctors in charge are expertly trained. In the treatment of tuberculosis and in the isolation of those who have it, we have gone far."

"But," continues Dr. Parran, "before cases can be treated and isolated, they must be found. At first it was easy to discover them. Consumptives walked the

streets. Even the non-medical person could pick them out. But soon there was felt the need for a new service—the diagnostic clinic, established at first for the poor who could not afford a private physician. This work of finding people who have tuberculosis has grown. As our knowledge increased, the methods of case-finding were refined and improved and became more expensive. Two important developments encourage progress—one, the tuberculin test which tells whether or not a person is infected with tuberculosis germs; the other, the X-ray with which we can now discover tuberculosis early, while it is still a 'silent' disease, without marked symptoms, and when it is easily curable."

The tuberculin test and the X-ray are powerful weapons employed by many physicians in Kentucky in the fight against this great enemy, but some physicians have not yet used these methods routinely in office examinations. Many embarrassing moments come to us as physicians today because we are not tuberculosis conscious and do not suspect tuberculosis in every chest. We fail to apply these modern methods to confirm, or rule out the presence of tuberculosis.

Dr. Edward Livingston Trudeau, when he charted the course of the National Tuberculosis Association, said, "Education of the people and, through them, of the state is the first and greatest need in the prevention of tuberculosis." Dr. Parran comments on the progress that has been made through education of the people concerning tuberculosis. He also is conscious of the greater interest and understanding of tuberculosis by the medical profession and attributes much of the progress made by the tuberculosis control program to the education of these two important groups.

But, again let us listen to Dr. Parran, "This is not the time, however, to stop for self-congratulation. A disease certainly is not yet under control which even now kills 70,000 of our people annually; which even now is No. 1 killer among people between the ages of 15 and 45. It is time to open the throttle and finish the run."

"There are plenty of people who believe in letting this and other disease problems work themselves out through the slow process of time. I do not agree with them. Though the reduction of tuberculosis has been steady, it still is slower than we should tolerate."

"The Early Diagnosis Campaign now being conducted by tuberculosis associations throughout the country calls attention to one means of detecting early tuberculosis.

The slogan this year is 'The X-ray reveals Tuberculosis Before Symptoms Appear.' Why not X-ray all apparently healthy persons?"

"An investment made now to hurry up the control of tuberculosis will be self-liquidating and final. Tuberculosis is perhaps our most expensive disease, the destroyer of earning capacity and of productive power. The time is opportune to plan for the complete control of this age-old disease."

THE NEW KENTUCKY PREMARITAL ACT

We are reproducing the new Kentucky Premarital Act which will become effective January 1, 1941. Each item is self-explanatory and the simplicity with which this law is written should materially facilitate its enforcement.

In the last analysis, the effectiveness of this law will rest upon the practicing physicians of the State, because it is to them that the public will turn for enlightenment and advice. Therefore, the physicians will have an unquestioned opportunity to explain to the applicants who seek their advice the value of such a law and what may be gained by their active cooperation and support.

This law which has been passed by the House of Representatives and the Senate, almost unanimously, was written with the approval of the Advisory Committee on Syphilis Control of the Kentucky State Medical Association. We want to call the attention of the profession especially to Section 2105a-1c.

It will be noted that if the examining physician, from laboratory and clinical examinations, finds that syphilis does not exist, he shall issue a certificate to that effect. If he finds that syphilis does exist, the certificate shall be withheld until the applicant has undergone such additional clinical examination and laboratory tests by the same or another physician.

This provision is made so the physician making the original examination, if in doubt, may call consultation, and may arrive at a final diagnosis as to the existence or non-existence of syphilis.

It has been found that sixty-five percent of all the syphilis in the United States is in the States which make up the South-eastern area of the nation, and Kentucky is one of these States. As guardians of the public health, the physicians of Kentucky have the privilege of helping to remove this stigma from their State. The text of the

law follows:

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE COMMONWEALTH OF KENTUCKY:

I. That Sections 2105a-1, 2105a-2, 2105a-3 and 2105a-4 are hereby repealed and amended and re-enacted so that said sections as amended and re-enacted shall read as follows:

Section 2105a-1a. Every person making application for a license to marry shall, at any time within fifteen days prior to such application, be examined by a physician authorized to practice medicine in Kentucky as to the existence or non-existence in such person of any stage of syphilis infection which is or is likely to become communicable, and it shall be unlawful for the county clerk of any county to issue a license to marry to any person who shall have failed to present and file with such county clerk either a medical certificate indicating that such examination has been made, or an order from a court of proper jurisdiction directing that said clerk issue the marriage license.

Section 2105a-1b. In order to obtain a medical certificate, as required in this Act, each such medical examination shall include a complete history, and such physical examination as will reveal any existing clinical evidence of a syphilis infection, and laboratory test or tests. All laboratory tests required by this Act shall be made by a laboratory which is approved by the State Commissioner of Health of Kentucky, or by the laboratory of the State Department of Health. Such laboratory test, or tests as may be made by the State Department of Health shall be made free of charge. Laboratory tests shall include a Kahn diagnostic test for syphilis, or some other serological test for syphilis approved by the State Commissioner of Health of Kentucky, and-or a Darkfield test for syphilis when moist lesions are present. The medical certificate referred to in this act shall be made on a form prescribed by the State Commissioner of Health of Kentucky.

Section 2105a-1c. If, on the basis of laboratory test, or tests, and clinical examination, the examining physician finds no evidence of any syphilis infection, he shall issue a medical certificate to that effect to the applicant. If, on the basis of laboratory test or tests and-or clinical examination, the examining physician finds evidence of a syphilis infection, a medical certificate shall be withheld until such time as the applicant has undergone such additional clinical examination and laboratory test or tests, by the same or another physician authorized to practice medicine in Kentucky, to deter-

ine the existence or non-existence of a syphilis infection, and if the existence of such infection is determined, the applicant shall immediately become amenable to the rules and regulations adopted and promulgated by the State Board of Health of Kentucky to prevent persons having a syphilis infection in a communicable stage from transferring such infection to other persons and medical certificate shall be issued when and after the requirements of the rules and regulations for the prevention of the spread of syphilis, hereinafter authorized by the State Board of Health of Kentucky have been fully complied with.

Section 2105a-1d. In the event the female applicant for marriage license makes an affidavit to the effect that marriage is necessary for the reason that she is with child and that such marriage will confer legitimacy on the unborn child, the county judge of the county wherein the application is made is hereby authorized and empowered to hear and determine, on medical testimony, the question of pregnancy and, on adjudging that pregnancy exists, shall order the county clerk to issue the marriage license, PROVIDED, that all other requirements of the law regulating the issuance of marriage licenses are complied with, even though the clinical examination and laboratory test, or tests, reveal that one or both marriage applicants have a syphilis infection, and in said order the county judge shall further provide that one or both of the applicants having a syphilis infection shall be treated for the infection as provided by the rules and regulations of the State Board of Health of Kentucky. Where such order is made by a county judge a copy of said order shall be filed with the county clerk in lieu of the medical certificate.

Section 2105a-1e. Every physician, or properly elected health officer, or a physician authorized to practice medicine in Kentucky designated as a representative of a health officer who takes, or causes to be taken from an applicant for marriage license, a specimen for laboratory examination, shall submit such specimen in a manner prescribed by the State Commissioner of Health of Kentucky and shall identify that specimen as "Premarital" when submitting it to an approved laboratory for test, and the laboratory shall provide a report, in triplicate, on a form prepared and furnished by the State Department of Health of Kentucky, of the result of the test on each such specimen submitted. The original of each such report shall be forwarded to the physician submitting the

specimen. A duplicate shall be forwarded to the State Department of Health of Kentucky not later than Saturday of the week in which the test was made, and the triplicate shall be retained by the laboratory for its files.

Section 2105a-2a. When an applicant has been refused a marriage license by the county clerk by reason of failure of the applicant to obtain the medical certificate required by this Act, the applicant may elect to file a protest, and take the procedure herein authorized, or to take any other proper procedure, either of a mandatory nature or as otherwise authorized by law. If such applicant elects the procedure authorized in this Act, he may file a protest before the judge of the county wherein the license was denied, and notice of such protest shall thereupon be served as a summons is served, upon the State Commissioner of Health and upon the county health officer, if there be a county health officer in that county. All trials under the procedure authorized in this Act shall be summarily heard and determined in chambers, and all persons, except necessary officers of the court, and attorneys of record in the matter under consideration, the county health officer or a physician appointed as a representative of the county health officer, and the witnesses, shall be excluded from the hearing, excepting only such persons as may be authorized to attend the hearing by the applicant. The evidence shall not be transcribed unless authorized by the applicant, and all information, reports, and evidence concerning the persons allegedly having a syphilis infection, and all recommendations, including laboratory reports pertaining thereto, shall be considered privileged communications and shall be inaccessible to the public, and a final order upon any hearing in the matter shall simply state that the applicant may or may not secure the license sought; PROVIDED, that all other requirements of law regulating the issuance of a marriage license are complied with; and PROVIDED further, that there shall be no court costs chargeable for service incident to the carrying out of this Act, but that such service shall be considered a part of the official duty of all officers involved in such proceedings.

The protest may be heard by the county judge twenty (20) days after it is filed, and upon such hearing, the county judge shall, in addition to any other evidence, hear medical testimony by the medical examiner, or examiners, and testimony by the health officer of the county or by a physician authorized to practice medicine

in Kentucky designated as a representative of the health officer, and by such representative as the State Commissioner of Health may designate. The medical testimony referred to shall be addressed solely to the determination of whether or not the applicant is suffering from a syphilis infection or infections, in a communicable stage, or in a stage likely to become communicable; PROVIDED, that no evidence of a laboratory examination shall be admissible unless it shall have been made in a laboratory approved by the State Commissioner of Health for the purpose of making serological tests; and PROVIDED further, that a written report of such an approved laboratory, attested by the physician in charge, identifying the applicant, shall be prima facie evidence of the result of the laboratory test made concerning the applicant.

Section 2105a-2b. Either the State Commissioner of Health, or the applicant may appeal from the action of the county judge within sixty (60) days from the date of the entry of the order of the county judge determining the matter, to the circuit court, and the matter shall be docketed and heard de novo as an equity action, and all rules of equity and laws concerning equity actions shall apply, and the provisions hereinabove mentioned concerning testimony shall apply.

Section 2105a-2c. Any person violating the provisions of this Act concerning the confidential nature of the provisions herein, shall be fined the sum of one thousand (\$1,000.00) dollars, which sum shall be paid upon recovery to the applicant, in lieu of damages, and upon failure to pay such fine, the defendant shall serve imprisonment as otherwise provided by law for failure to satisfy a fine.

Section 2105a-3. A marriage license issued in accordance with the provisions of this Act shall be valid for thirty days, including the date it is issued, after which time it shall become invalid.

Section 2105a-4. In order that each county judge and the circuit judge may arrive at just decisions under the authority conferred upon him by the Section 2105a-1d, 2105a-2a and 2105a-2b of this Act, the county health officer shall, after hearing the evidence, either himself or by a physician authorized to practice medicine in Kentucky and who is especially skilled in the diagnosis of pregnancy or in the diagnosis, prevention and treatment of syphilis, advise him in writing as to the existence of pregnancy or of syphilis in a communica-

ble stage, or in a stage likely to become communicable, and such advice shall be considered by the court and made a part of the record.

Section 2105a-5. Any applicant for marriage license, physician, laboratory representative or county clerk who shall violate any of the provisions of this Act, or who shall make any false representations of fact or identity, shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be fined not less than ten (\$10.00) dollars, nor more than one hundred (\$100.00) dollars, and imprisoned.

2. This Act shall become effective on January 1, 1941, and shall be in effect thereafter.

3. Since the Sections of the Statutes to which this Act is amendatory cannot be made effective as of March 1, 1940, as now provided by law, because the approval of private laboratories in the Commonwealth cannot be completed by that time, an emergency is declared to exist and this Act shall become effective from and after its passage and the approval by the Governor.

ELI LILLY AND COMPANY

At several meetings of county societies we have had the pleasure of attending recently, physicians have spoken to us in grateful appreciation of the fact that the Eli Lilly and Company has carried announcements in our JOURNAL for seventeen consecutive years. This firm is located in the neighboring city of Indianapolis and has made as many contributions to pharmaceutical science as any other in the world. The JOURNAL has always been very happy because it has had the privilege each month of renewing the feeling of intimacy we have had with this great manufacturing house. It is a pleasure to congratulate Eli Lilly and Company on their very substantial reputation for fair dealing and scientific accuracy built up through the years.

DR. LEAVELL

Dr. Ira V. Hiscock, Professor of Public Health, Yale University School of Medicine, asked Dr. Hugh R. Leavell to assist him with a survey of the health conditions in Baltimore. The survey was made during March. Recognition of this kind is a signal honor for both Dr. Leavell and the Louisville Health Department in having a Director with the ability to assist a man of Dr. Hiscock's standing.

OFFICIAL ANNOUNCEMENTS
PEDIATRIC POST GRADUATE
INSTRUCTION

APRIL 24-JUNE 26, 1940

A Postgraduate Course of Instruction in Diseases of Children will be held at the Children's Free Hospital, Louisville, beginning Wednesday, April 24, 1940, and continuing each Wednesday for ten weeks from 9 A. M. to 1 P. M.

One hour will be spent each week in a discussion by the Staff of all interested cases in the Hospital. All the newer methods of treatment by transfusions, lumbar and cisterna puncture, hypodermoclysis, peritoneal injection, syphilis, etc., will be demonstrated on patients. Lectures will be given on many of the puzzling problems in diagnosis and treatment, but such other questions as may be suggested will also be discussed. The staff will be composed of Drs. Philip F. Barbour, J. W. Bruce, Lee Palmer, W. W. Nicholson, J. H. Pritchett, Frank A. Simon, Winston U. Rutledge, J. Keller Mack, Margaret Limper, H. S. Andrews, W. B. Troutman, J. J. Glaboff, J. S. Bumgardner, A. A. Shaper, Franklin Jelsma, and William Keller.

Further inquiries should be sent to Dr. Philip F. Barbour, Heyburn Building, Louisville. A nominal charge of \$5.00 will be made for the entire course. A certificate will be issued if desired. The program will be given as follows:

APRIL 24

- 9-10 Physical Examination
Philip F. Barbour
- 10-11 Weekly Conference
Philip F. Barbour
- 11-12 Care of the Newborn and Premature
J. W. Bruce
- 12- 1 Growth and Development
Lee Palmer

MAY 1

- 9-10 Deficiency Diseases
W. W. Nicholson
- 10-11 Weekly Conference
J. W. Bruce
- 11-12 Syphilis
J. H. Pritchett
- 12- 1 Practical Aspects of Allergy
Frank A. Simon

MAY 8

- 9-10 Common Skin Diseases
Winston U. Rutledge
- 10-11 Weekly Conference
W. W. Nicholson
- 11-12 Diagnosis and Treatment of Meningitis
J. Keller Mack
- 12- 1 Infant Feeding
Margaret Limper

MAY 15

- 9-10 Pneumonia in Children
H. S. Andrews
- 10-11 Weekly Conference
J. Keller Mack
- 11-12 Heart Disease
W. B. Troutman
- 12- 1 Transfusion and Parenteral Fluids
J. J. Glaboff

MAY 22

- 9-10 Foreign Bodies in the Chest
J. S. Bumgardner
- 10-11 Weekly Conference
H. S. Andrews
- 11-12 Abdominal Pain
Philip F. Barbour
- 12- 1 G. C. Vaginitis
A. A. Shaper

MAY 29

- 9-10 Diarrhea
W. W. Nicholson
- 10-11 Weekly Conference
J. J. Glaboff
- 11-12 Laboratory Methods
J. Keller Mack
- 12- 1 Poliomyelitis and Encephalitis
J. H. Pritchett

JUNE 5

- 9-10 Interpretation of X-ray in Children
J. W. Bruce
- 10-11 Weekly Conference
A. A. Shaper
- 11-12 Leukemia and Anemia
Lee Palmer
- 12- 1 Immunization
Margaret Limper

JUNE 12

- 9-10 Convulsions
H. S. Andrews
- 10-11 Weekly Conference
Margaret Limper
- 11-12 Common Neuro-Surgical Conditions in Children
Franklin Jelsma
- 12- 1 Diabetes
A. A. Shaper

JUNE 19

- 9-10 Emergencies in Childhood
Lee Palmer
- 10-11 Weekly Conference
J. H. Pritchett
- 11-12 Children's Problems
William Keller
- 12- 1 Lead Intoxication
J. J. Glaboff

JUNE 26

- 9-10 Childhood Tuberculosis
J. W. Bruce
- 10-11 Weekly Conference
Lee Palmer
- 11-12 Nephritis and Pyelitis
J. H. Pritchett
- 12- 1 Endocrine Disturbances
Philip F. Barbour.

NOTICE — MEDICAL TECHNOLOGISTS

At the request of the Surgeon General of the Army and in compliance with its policy of cooperation with both the Army and the Navy, the American Red Cross, as an expansion of its peace-time service for the military forces, has undertaken the enrollment of various types of medical technologists who are willing to serve in the medical departments of the Army and Navy if and when their services are required at the time of a national emergency.

Persons with the following qualifications will be enrolled:

- Chemical Laboratory Technicians (male)
- Dental Hygienists (male and female)
- Dental Mechanics (male)
- Dietitians (male and female)
- Laboratory Technicians (male and female)
- Meat and Dairy Hygienists (Inspectors) (male)
- Nurses (male)

(This group will not be members of the Army and Navy Corps which under basic law are limited to females, but will be used as technologists for service auxiliary thereto).

Occupational Therapy Aides (male and female)

- Orthopedic Mechanics (male)
 - Pharmacists (male and female)
 - Physical Therapy Technicians (Aides) (male and female)
 - Statistical Clerks (male and female)
 - X-ray Technicians (male and female)
- General qualifications for enrollment are as follows:

1. Citizens of the United States
2. Ages 21-45 years (Army); 18-35 (Navy—men only).
3. Physically qualified. Applicants must pass a satisfactory physical examination, according to standards set respectively by the Army and Navy Medical Departments.
4. Women applicants must be unmarried.
5. All applicants must express a willingness to serve as a technologist in time of national emergency.

Male technologists will be eligible for enlistment in the Army as non-commissioned officers in the grades of sergeant, staff sergeant, or technical sergeant. Women technologists, and men who do not qualify physically, will be eligible for employment by the Army as civilians.

For the Navy, male technologists will be eligible for enlistment in the Naval Reserve as Petty Officers — Pharmacist's

Mates 3d, 2nd, and 1st, Class and Chief Pharmacist's Mate (acting appointment). Women technologists are not eligible for service in the Navy under present plans.

The Medical Department of the Army will require a considerable number of technologists in each of the above named groups. The Navy Medical Department requirements will be similar except for dietitians, occupational therapy aides, orthopedic mechanics and dairy and food hygienists (inspectors) who will not be needed. Notwithstanding the maintenance of this enrollment, the Navy also desires peace-time enlistment in the U. S. Naval Reserve, and male technologists who wish to enlist in the Naval Reserve are urged to communicate direct with the Commandant of the Naval District in which they reside. The address of their Commandant will be furnished upon request.

Technologists who qualify according to these general standards and who are willing to enroll for service as outlined above should communicate with the American National Red Cross, Washington, D. C.

COUNTY SOCIETY REPORTS

Pike: The Pike County Medical Society held its regular monthly meeting on Monday night, February 19, 1940, in the Ky. and W. Va. Power Co. auditorium in Pikeville. The paper of the evening was prepared by Dr. Frank J. Burian, McVeigh, who was unable to deliver it and in his place, Dr. J. E. Johnson, Stone, read the paper. The title of the paper was, "The Treatment of Pneumonia."

The following physicians were present: Doctors H. I. Berman, Paul Gronnerud, A. G. Osborne, M. D. Flanary, E. P. Wright, F. A. Vernon, R. L. Loftin and F. H. Hodges, of Pikeville; Dr. J. E. Johnson, of Stone, and L. A. Wahle of Hardy.

F. H. Hodges, Secretary.

Caldwell: The following are the 1940 officers for the Caldwell County Medical Society: I. Z. Barber, president; J. M. Moore, vice president; W. L. Cash, secretary-treasurer; W. C. Haydon, delegate to the State Association; B. K. Amos, alternate delegate to State Association. Board of censors: J. M. Dishman, W. C. Haydon, W. P. Morse.

Members of the Society in attendance at the annual meeting discussed the provisions of the pre-marital law to control venereal diseases in marriage and pledged co-operation in its enforcement.

W. L. Cash, Secretary.

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PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

SYMPOSIUM ON ALLERGY

NEWER CONCEPTS OF ALLERGY

MILTON B. COHEN, M.D.

Cleveland, Ohio

The term, "allergy," is usually used to define a reaction occurring in man which follows exposure to some substance usually harmless. Attention was focused upon these reactions when diphtheria antitoxin began to be used, when it was noted that some persons were made severely ill almost instantly after receiving the injection, others after a delay of a few hours to a day or two, and many after a period of seven to twelve days. These reactions were grouped under a common heading of serum disease. At about this same time, or slightly preceding it, Theobald Smith, Rosenau and Anderson and particularly Richet noted that guinea pigs and other experimental animals which had received a dose of some essentially harmless substance, for example, horse serum, could be killed by a subsequent dose after an incubation period of from seven to twenty-one days. To this experimental condition Richet gave the name "anaphylaxis." As a result of studies by many observers, certain conditions in man, notably asthma, hay-fever, hives, angioneurotic edema and certain eczemas have been explained on an anaphylactic or allergic basis. Correlated studies in animals and man, however, have indicated that allergy is not limited to man and that the allergic state is intimately related to the process of immunity. There are phases of allergy in most infectious diseases and some of the degenerative diseases.

When I was a medical student, inflammation was defined as a response of the body to an invasion by microorganisms. That inflammatory reactions could be caused by harmless and inert substances like horse serum, egg white or ragweed pollen as a result of some altered reaction capacity of the tissues of the body itself was unheard of and unthinkable. Yet such inflammatory reactions are responsible for many severe and incapacitating illnesses.

An allergic inflammation, like one resulting from bacterial invasion, may vary from the slightest asymptomatic reaction

to one causing widespread tissue destruction with severe symptoms. Occasionally these reactions are sufficiently acute and fulminating to be the immediate cause of the death of the patient. More often they produce secondary conditions which may terminate in death with the diagnosis of some chronic condition such as status asthmaticus or periarteritis nodosa. Fortunately, again paralleling infections, most allergic reactions disturb the function of some organ or system of organs without producing irreversible tissue changes and no permanent damage is done.

Just as low grade chronic infection sometimes below the clinical level may undermine a patient's health, giving rise to vague and frequently undiagnosable symptoms, so may subclinical allergic reactions keep a patient from developing his full state of healthfulness. This is a very important aspect of allergy, since at least one-half of our population suffers from some allergic manifestation at some time in their lives. It is particularly striking when one remembers that infantile eczema with colic is a very common disturbance in infancy and that these are the first signs of the allergy which will be part of the constitution of the individual either in masked or clinical form from his cradle to his grave. In addition, the infant and the child grow and develop rapidly. The summation of the effects of disturbances in growth and development produced by disease of all kinds during childhood determine how nearly the individual will attain the full adult potentialities, which are in built by his heredity. We, as doctors, must of course continue to study disease so as to understand more fully the problems presented by the sick individual. We must consistently ask ourselves "how sick is he?" But we must not neglect the well. It is not enough to know that the individual has no diagnosable disease. We must be able to tell him how nearly healthful he is. We must be prepared to offer him the advantages of preventive medicine. Herein lies the medicine of the future.

A clinician who studies disease learns to appreciate its vagaries. At first he recognizes only the typical fully developed cases. Study of these enables him to appreciate the significance of minor symptoms and signs and progressively to recognize the disease in earlier form. He also

learns the effects of the disease on the human economy.

Studies of patients with allergy have demonstrated that there are many effects of the condition besides the local disturbance of function produced at the site of entrance of the offending allergen. When an allergen comes in contact with a cell containing specific antibodies with which it is capable of reacting, a toxic substance is formed. This is similar pharmacologically to histamine and has been called H substance by Thomas Lewis. It is this toxic substance which sets off the inflammatory response which is a hive. H substance is highly diffusible. It is absorbed from the local area and is carried to remote parts of the body where it produces harmful effects. An example can be seen in the hay-fever patient whose symptoms are controlled by pollen treatment, but who complains of lack of energy and a general "toxic" feeling during the ragweed pollinating season.

It is in children that local and general effects of allergy can be observed most readily. The child's metabolism is more liable than that of the adult. Disturbances in metabolism upset the orderly processes of growth and their ultimate effect can be measured by observing the progress in growth between successive examinations.

When an allergic child is observed for the first time he is often noted to be thin and asthenic. When compared with standards for children of his age he will be found to be shorter than average for his age and light even for his short stature. His face will be small, triangular in shape, with the apex down. The malar prominences will be flat, the palate high arched and narrow. There will probably be an orthodontic deformity with an overbite. Posture will be poor. The shoulders will sag, the abdomen will protrude, and there will be an exaggeration of the usual lumbar curves of the spine. Standing height will be as much as one inch less than recumbent length. During the active phase of the disease he will show a personality disturbance which will manifest itself in periods of hyperactivity, followed by periods of great fatigue. Enuresis and stammering are commonly seen. In the absence of any specific effects on mentality we speak of the psychological disturbance as "clouding of the personality."

Observations on allergic children have shown that the changes referred to above

are due to malnutrition in the broad sense. The allergic individual utilizes food substances, minerals and vitamins poorly. During the active phases of the disease he is actually starving in the midst of plenty! The effects of poor utilization of nutritional substances manifest themselves first in a failure to put on weight, next in failure to grow in length and finally in failure to mature. The younger the child is when activity of the disease with its disturbances of metabolism occurs, the more marked will be the objective evidences of disturbance in growth.

Let us consider the face as an example. The skull is 1-5 adult size at birth, 4-5 adult size at two years, and adult size at six years. The face, being an appendage of the skull, must grow proportionately during infancy and pre-school years. It is obvious, therefore, that any disturbance of growth occurring in these periods is likely to interfere with the proper development of the face. The face grows in three dimensions and a disproportion in growth may be present in any or all of these. The typical appearance is represented by a small, triangular shape with the apex down, and is the type usually spoken of as the adenoid facies. It is important to look for the disturbance of facial growth in each of the three dimensions (anterior, lateral and vertical), since the age of onset of actual allergy can be determined with reasonable accuracy from these observations alone. Run the index fingers of each hand from the center of the lower border of the orbit downward over the malar prominences so as to observe whether the normal rounding forward of these structures is present or whether the face is flat or even concave in these areas. This is a measure of forward growth. Continue downward with the two fingers and press toward the midline, just below the malar prominences. This will indicate the width of the upper jaw and is a measure of lateral expansion. Confirmation of the jaw width is obtained by looking into the mouth and observing the height of the hard palate and the width of the maxilla. Disturbance in vertical growth results in a curving upward of the anterior end of the hard palate and is usually evidenced by the forward and upward inclination of the upper incisor teeth. Clinical experience indicates that allergic children with marked disturbance in facial

growth, particularly in lateral expansion, have had more or less continuous allergy since its onset during the first year of life. Those in whom there is found good lateral expansion with only moderate flatness due to disturbance in anterior growth usually give histories which date back only to the second or third years.

Attempts to overcome the malnutrition described above by feeding more vitamins, minerals and food substances usually fail because of the inability of the allergic to utilize them properly during the active phases of the disease. When the activity is controlled by proper treatment of the underlying allergy, the metabolism improves and malnutrition is halted.

When malnutrition is overcome, the allergic child grows in a normal fashion and tends to make up the loss due to previous activity of the disease.

The retardation in height and weight shown by an allergic child on his first examination provides a basis for recording the results of treatment. At subsequent examinations at intervals of three to six months the increase in height and weight can be used to indicate the progress. If a child increases only by normal increments he is doing well, but under ideal conditions we should expect him to make up some of the deficiency.

DIAGNOSIS OF ALLERGIC CONDITIONS

FRANK A. SIMON, M.D.

Louisville

One of the most important things to remember in the diagnosis of allergic manifestations is that they are very common. The busy practitioner will almost daily encounter one or more of the following: seasonal allergic rhinitis (hay-fever), perennial allergic rhinitis (catarrh, sinus condition), bronchial asthma, allergic eczema, urticaria, angioneurotic edema, allergic conjunctivitis, migraine, gastrointestinal allergy, allergic drug eruptions, etc. Statistics gathered by various workers indicate that from 7 to 22% of the general population is afflicted with one or more of these major allergic conditions.

In the time available it will not be possible to go into detail concerning the

diagnosis of each of these conditions individually. It is my intention rather to discuss allergic diagnosis briefly in a general way and to give a few illustrative reports.

The diagnosis of allergic diseases may conveniently be discussed under four headings as follows:

1. The history. This is always very important but is especially so when given by an intelligent, observative patient. The most important aspects of the history are the chief complaint, its time and mode of onset, duration, relationship to seasons, occupation, hobbies, travel, diet, etc. The patient himself may know that certain exposures are harmful to him. For example, he may wheeze or sneeze when near hay, cattle or in dust of various sorts. He may know that certain foods always cause hives or headaches or digestive symptoms. In taking a history it is much better to record past events by the use of dates than in terms of elapsed time. For example, 3 months ago may be found to be September 1st, which is important because it is the peak of the ragweed pollen season in many locations. Six months ago may have been early May, which has considerable significance because it is the beginning of the grass pollen season in Kentucky.

It is important to inquire about allergic manifestations other than the chief complaint because the clinical expressions of allergy are often multiple. It is common to have hay-fever and asthma, asthma and eczema, urticaria and gastrointestinal allergy, etc.

The history regarding general health and health habits, recent illnesses, operations, past treatment, diet, drugs and family history should always be investigated.

2. Physical Examination: The wheals and large areas of swelling in urticaria and angio-neurotic edema are usually quite obvious. In eczema of the contact type the typical lesions are vesicles, erythema, swelling and scaling which occur on those parts which have been in contact with the allergic irritant. In eczema of the atopic type the lesions are typically on the flexure surfaces of the arms and legs, the face and neck. They are red, swollen and papular, but usually not vesicular.

In allergic rhinitis (seasonal and perennial) the nasal mucous membrane is typically pale, swollen and boggy, but may

occasionally be more red than normal. The dry, musical rales, prolonged and labored respiration, expanded condition of the chest found in bronchial asthma are well known to all of you.

In migraine and gastrointestinal allergy the essential lesions occur in internal organs and do not produce typical physical signs.

3. Skin Tests. The diagnosis of the existence of the allergic condition is usually not difficult provided the physician keeps the possibilities in mind in considering the case. The identification of all the causes responsible for the symptoms, however, may not be so easy. In the identification of these causes skin tests have proven to be of great practical value. They constitute a short cut in diagnosis and enable us to discover causes which would otherwise remain unidentified. Skin tests are of much greater value in some diseases than in others. In seasonal hay-fever they are positive in practically 100% of the cases. In perennial hay-fever and in bronchial asthma they are frequently positive and of clinical value. In allergic eczema of the atopic type (that related to hay-fever and asthma) they are often positive and of value in infants. In adults with atopic eczema their value is considerably less. In allergic eczema of the contact type skin tests must be performed by the patch or contact method and they are very often of great practical value.

In urticaria, angioneurotic edema, migraine and gastrointestinal allergy skin tests are definitely of less value than in the conditions named above. It is my opinion that the physician is often justified, in such cases, in employing such diagnostic procedures as test diets, food diaries, elimination of foci of infection and elimination of drugs before resorting to skin tests.

Positive skin tests, as you know, are not invariably of clinical significance and negative tests do not always exclude the possibility of clinical allergy. The tests should always be interpreted in connection with the patient's history and a practical, common sense attitude taken toward both positive and negative skin reactions.

4. Other Tests: Skin tests are performed because it has been shown by experience that the skin is frequently sensitive to the same substances as other tissues of the body and the skin, being on the surface of the body, presents a large and readily accessible area for tests. The-

oretically, however, the best test would be one which would test the organ or tissue clinically involved in disease, such as the bronchioles for asthma, the nasal mucosa for hay-fever and the intestinal tract for gastrointestinal allergy. Such tests are cumbersome and time consuming but may be necessary and of great value in some cases. Among the more common of these tests there are:

A. The test diet (elimination diet). For several days to several weeks the patient is allowed only a limited number of specified foods, for example: lamb, rice, stewed pears, butter, sugar, salt and water. If he becomes symptom-free on the diet other foods are gradually added. A return of symptoms is attributed to the last food added to the diet. This food is then avoided but others may be added as a further test until all the desired foods have been tested and found either to agree or disagree.

If the patient is not relieved by the diet it is discarded entirely and another selection of foods substituted. A third and fourth diet may be tried if desired until one has been found which provides relief or until the physician is convinced that the symptoms are not due to foods.

B. The food diary. A daily record is kept of all foods eaten at every meal (and between meals). Symptoms are also recorded daily. After several weeks the record is studied critically in order to ascertain whether or not the symptoms always followed the eating of one or more articles of food.

C. Inhalation tests may be made by having the patient inhale small quantities of suspected dusts.

D. Environmental control. In case of suspected inhalant allergy the patient may be placed in a relatively dust-free sleeping room, he may temporarily be kept away from hay, grain dust, farm animals and other environmental dusts, or he may be removed to a hospital or may travel to some other geographical location (so-called change of climate). These and similar tests have as their object the separation of the patient from some suspected but unidentified environmental allergen.

Other tests which provide evidence for the existence of an allergic condition (but which do not aid in identifying specific causes) are the increased percentage of eosinophiles in the blood, nasal secretions, sputum, etc.

CASES ILLUSTRATING DIAGNOSIS OF
ALLERGY

1. M. J., a woman of 28 years, has had attacks of sneezing, thin nasal discharge, congestion of the nose and eyes every year for the past four years, beginning in mid-August and lasting to the latter part of September. She is well at other seasons. Her skin tests show a strongly positive reaction to ragweed pollen and smaller reactions to several grass pollens. These latter are of no clinical importance because she is symptom-free during May and June (sub-clinical sensitivity). The test to ragweed pollen agrees with her clinical history and is of etiological significance.

2. L. W., a mechanic, 35 years of age, has had attacks of asthma every summer in May and lasting to October for the past nine years. He is unable to work in July, August and September because of severe asthma. Skin tests, scratch method, are negative to all the common inhalants and foods. Intradermal tests show positive reactions to the fungus, alternaria, and to ragweed pollen. Alternaria spores are prevalent in the air during the summer and fall seasons and ragweed pollen during the fall, hence the positive tests are in agreement with the history and will account for the symptoms. Desensitization resulted in marked benefit to this patient; he was able to work all summer and fall with only slight asthma.

3. N. B., a boy of nine years, has had attacks of asthma regularly every fall in late August and September for the past four years, and to a lesser extent, irregularly, at other seasons. His mother has hay fever. Skin tests revealed definitely positive reactions to household dust, ragweed pollen, cottonseed and several foods. In July, 1937, he visited his grandmother in Memphis and had a severe attack of asthma immediately after going to bed. He left for home the following day and before reaching Louisville was entirely free of symptoms. Two years later, July, 1939, he again visited his grandparents and again had severe asthma on retiring and lasting all night. The following morning he left for home and after going nine miles was entirely symptom-free. A skin test made with the mattress contents was definitely positive. Cottonseed was probably responsible for these attacks.

4. J. R., a widow, 43 years of age, employed as a stenographer, has had attacks

of asthma over a period of 20 years. This report is concerned with only two incidents in her life which are believed to be worth recording. One evening last summer she had a very severe attack of asthma which came on suddenly without apparent cause while she was sitting at home. It lasted all night and required adrenaline for relief. Several months later she again had a severe asthmatic attack, lasting all night and requiring three injections of adrenaline for relief. She recalled that on this occasion, as well as at the time of the previous attack, she had eaten a certain brand of brown chocolate cookie. She also said that these cookies caused a peculiar sensation in the mouth as she ate them, but she did not realize its significance at the time. Her skin tests showed, among other things, negative reactions to chocolate, wheat and eggs, and a very strongly positive reaction to cottonseed and a strongly positive reaction to an extract of the cookies. Cottonseed flour is used in certain bakeries and was very probably contained in these cookies. It is a wholesome food for people who are not allergic to it.

5. D. S., a telephone operator, 25 years of age, complained of redness, marked swelling and itching of eye lids, temples and skin area behind the ears of five months' duration. The distribution and other characteristics of the lesions pointed quite definitely to sensitization to the metal frames of her glasses. Patch tests revealed strongly positive reactions to nickel and to filings obtained from the frames of her glasses. Nickel is a strong sensitizer and a common constituent of many alloys such as white gold, German silver, monel metal, rustless steels, etc., and is found in jewelry of all sorts, coins, pins, knobs, handles, faucets, knives, buttons and numerous other articles in daily use (some of which are sold as "chromium plated").

6. W. B., a clerk, 56 years of age, complained of attacks of severe itching, marked redness, swelling and burning of the face, neck, arms, forearms, hands and legs. The attacks occurred during the past three years only in the summer season and lasted from two to four weeks or longer. There was also a history of allergy to mosquito bites, i. e., a mosquito bite produced an unusually large area of swelling with considerable itching. Hence this man made an effort to avoid mosquitoes and frequently used insect sprays.

During one attack of dermatitis he took a vacation in California to "change climate" but had a recurrence while there. He then went to Chicago and was surprised to find a mosquito in his room which was located on one of the upper stories of a tall hotel. The manager kindly sent up a boy with an insecticide with which his room was thoroughly sprayed. The following day he was much worse and returned home not having the slightest idea what was the cause of all his trouble. His patch tests revealed a strongly positive reaction to pyrethrum, which is a common constituent of insecticides. By avoiding insecticides he has been entirely free of dermatitis during the remainder of 1938 and throughout the summer of 1939.

7. L. D., a physician, approximately 50 years of age, had digestive disturbances in infancy and childhood. He was always regarded as a sickly, puny child. His mother took him to a physician who assured her that he was not seriously sick and advised that he be given plenty of good food, especially milk. His indigestion, gas, abdominal discomfort continued, however. After his graduation from medical school the World War broke out, in 1914, and he was drafted into the Austro-Hungarian army. On one occasion his company advanced far beyond its source of food supply and for several days his only food consisted of the emergency ration of hard, dry biscuits. For the first time in his life he really felt well. But soon the regular diet was resumed and his digestive disturbances returned. But he then suspected that food might be responsible for his symptoms, omitted milk from his diet, and has had no digestive difficulty since except when he intentionally or accidentally included milk in his diet. His skin tests were negative to milk. Circumstances forced this patient to go on a test diet which solved his difficulty entirely.

Chronic Bronchiectasis. — Andrus describes four roentgenologic "cardinal signs" of bronchiectasis: generalized increase in density of the pulmonary markings, ring shadows, displacement of organs and chronic pneumonia. He believes that the presence of any one of these signs warrants a suspicion of bronchiectasis. When two of these "cardinal signs" are well established, such suspicion is greatly enhanced. The presence of three or more of these shadow changes warrants a diagnosis of bronchiectasis, ranging from probable to presumptive or positive, according to the development of the shadows and the clinical associations.

TREATMENT OF THE MORE COMMON ALLERGIC DISEASES

ARMAND E. COHEN, M.D.

Louisville

Asthma, hay-fever, and urticaria are probably the most common allergic diseases.

Asthma, which we shall consider first, may be due to something outside the body (extrinsic), something within the body (intrinsic), or it may be due to a combination of both.

The extrinsic type most characteristically allergic, is usually due to a sensitivity to such substances as pollen, house dust, flour, or other inhalants. Occasional foods or drugs ingested into the body are a source of the difficulty. The treatment of this type of asthma may be simply the avoidance of the substance to which the individual is sensitive. When this is impractical, in some instances, it is possible to relieve the patient by disimmunizing him by repeated and increasing parenteral injections of an extract of the substance to which the patient has been found sensitive.

The intrinsic type of asthma is often due to some acute or chronic bacterial infection, although it may be due to obstruction from new growths, or cardiac or renal insufficiency. While in some of these cases an allergy to the infection or other pathology may cause the asthma, others seem purely mechanical and the treatment is directed along lines which will promote drainage of the bronchial tree and overcome the not infrequent accompanying pneumonitis.

The combined type of asthma, as the name implies, may be originally a purely allergic asthma to which there is a superimposed infection. Frequently in these cases, the allergy must be overcome before response to treatment is effective.

All of these types have much in common and we will discuss the treatment in general. If one is called to see a patient sitting up in bed, pulling in air as if every breath will be his last, there is little time for theory or speculation. As soon as you are reasonably sure that you are not dealing with some cardiac catastrophe, epinephrine is the drug that offers prompt, almost dramatic, relief. If epinephrine is

used judiciously, your patient will receive most gratifying relief, but care must be taken not to administer more than a physiological dose, for a toxic dose may make the patient so "jittery" that he may remember these side effects long after his gratitude for the relief from asthma has been forgotten. An injection of 4 to 8 minims of a 1:1000 solution of epinephrine is usually sufficient and it is better to repeat this dose in from 15 to 30 minutes if necessary, rather than risk giving a toxic dose which, while rarely dangerous, offers no greater relief from the asthma. Epinephrine is still the most reliable single drug that we have for the treatment of acute asthma. Besides the usual 1:1000 solution of epinephrine, there is now available a 1:100 solution which is often effective in mild paroxysms when used as a spray and inhaled through the mouth. Also a preparation of epinephrine in peanut oil is available for deep subcutaneous or intramuscular injection. The preparation bears the same relation to regular epinephrine that protamine insulin has to regular insulin; namely, the prolongation of the effect because of the delayed absorption. Ephedrine or ephedrine-like products are often helpful, particularly in cases of milder wheezing. The iodides are likewise a time-honored remedy and should be given to the point of saturation in order to thin the tenacious secretions. Either the sodium or potassium salts of iodine are satisfactory, although some physio-chemists have suggested that the good effects are due to the potassium. Personally, I have found little effect clinically from the administration of potassium salts in the treatment of asthma or any of the allergic diseases.

The many drugs used in the treatment of asthma are so numerous that I shall mention only a few. Intravenous glucose or succrose is helpful in restoring the glycogen balance, particularly after the patient has depleted his reserve, either through his inability to eat or drink, or because of repeated administrations of epinephrine. Fluids by mouth or by vein are also helpful. Intravenous aminophyllin is often quite useful, particularly in epinephrine-fast cases, or in cases of status asthmaticus. Helium and oxygen mixtures certainly make breathing easier for the asthmatic, and in one instance, I found it a life-saving measure. Atropine, Stramonium and drugs of this type often cause a

drying of secretions and while they give temporary results, often make the sputum very viscid. Morphine, Delaudid and other opiates should be used cautiously, if at all. Undoubtedly, morphine has killed more asthmatic patients than has the asthma. It is sometimes permissible in cases of status to give amytal or small doses of morphine, or rectal injections of ether in oil or evipal, if the patient requires rest at all costs.

TREATMENT OF HAY FEVER

Hay-fever, whether it be due to the tree pollen in the spring, grass pollen in the early summer, or ragweed pollen in the late summer and fall, is best treated by desensitization. This consists of giving repeated increasing parenteral injections of the extract of the pollen to which the patient may be sensitive. In Kentucky, it is frequently necessary to raise the patient's tolerance to nearly 50,000 pollen units in order to assure the maximum relief from symptoms. It is for this reason that some have complained of the inferior results obtained from doses recommended by some of the commercial houses. Once high tolerance has been produced, it is more economical to maintain such tolerance by monthly injections of a somewhat lower dose throughout the year.

Regarding the treatment of patients who have not been desensitized or who otherwise require local treatment, intranasal applications of ephedrine or ephedrine-like products, or weak solutions of cocaine are helpful. In case of the latter drug, care must be taken that addiction does not develop. Ephedrine by mouth, either alone or combined with phenobarbital, aspirin, or atropine may be helpful. Room filters are often of value but should not be necessary if the patient has been sufficiently desensitized. The masks and nose rings of recent vogue are considered an abominable nuisance by most patients. If the patient desires to go to a so-called hay-fever resort, the doctor should obtain for him the pollen count of the resort which he may wish to visit, as the most advertised resorts are frequently the least desirable. Dr. Durham's text book on hay-fever is particularly helpful in this regard.

TREATMENT OF URTICARIA

Urticaria, if accompanied by angio-neurotic edema or possibly edema of the

glottus, may require similar emergency treatment as acute asthma. Here again epinephrine is the sheet-anchor of treatment. I have not found epinephrine in oil as helpful, however, as in cases of asthma. In milder cases, sometimes ephedrine or such substitutes as propadrine hydrochloride, are helpful. Of course, where the allergen is definitely known, the removal of such substances from the patient's environment is most logical. Unfortunately, skin tests are not often helpful in diagnosing these cases, and food diaries and substitute diets likewise frequently fail to be of help. These urticarias of unknown origin are the most difficult.

Some of these are due to infections, others are due to drugs, but probably the majority are due to the liberation in the skin of a histamine-like substance, if not actually histamine. As the gastrointestinal tract is the source of the greater amount of histamine, it is logical to prescribe such remedies which neutralize or slow the absorption of histamine. Such drugs as calcium, mineral oil, kaolin, soricin, and histaminase are sometimes helpful. I have found the latter drug, either by mouth or per injection, of relatively little value in the treatment of these cases. Often the repeated and increasing daily injections of histamine hydrochloride may be helpful. This is sometimes of value likewise in allergic headache. Possibly the daily cold shower, which liberates considerable quantities of histamine, may produce the good results because of the liberation of this chemical. Doubtless, however, many of the so-called drowning deaths may have been due to histamine shock induced by the cold water.

Other therapy in the treatment of urticaria, particularly favored among dermatologists, is the intramuscular injection of the patient's own blood; also, intravenous injections of calcium, or the calcium or sodium salts of thiosulphate. Local therapy consists of soothing applications. After prolonged use of some of these applications, the skin becomes dry and it may be necessary to apply mineral or other oils.

If anyone asserts that it is just to render to every man his due, and if he understands by this that what is due on the part of the just man is injury to his enemies, and assistance to his friends, the assertion is that of an unwise man. For the doctrine is untrue; because we have discovered that in no instance is it just to injure anybody.—Plato.

ALLERGY IN DERMATOLOGY

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Until recently the average physician stood in awe merely at the mention of the word allergy. This, according to Sulzberger, was because previously such material had been presented in such undigestible form as to be utterly incapable of comprehension. Today we have a much clearer conception of its meaning and we are gradually unraveling and simplifying a previously complex and bewildering subject. It is useless, as well as superfluous, for me to discuss with you such things as the history, definition and concepts of allergy. These have been clearly and adequately discussed by the previous speakers. It is my purpose to confine the major portion of this paper to one phase of dermatological allergy—namely, dermatitis medicamentosa. But before entering into this subject, perhaps it would not be amiss to mention a few of the many diseases of allergic nature with which the dermatologist is so frequently confronted.*

CONTACT ALLERGY (Dermatitis Venenata): If we could exclude such diseases as athlete's foot and acne vulgaris, dermatologists perhaps see more cases of dermatitis resulting from external contacts than any other group of diseases. The classical example, of course, is the well known *Rhus toxicodendron* (poison ivy) dermatitis. Other equally as representative examples are the novocain dermatitis seen frequently in dentists and surgeons; the small vesicles present about the fingers of nurses due to contact with various chemicals; metal dermatitis found in photographers; eruptions about the hands of bakers and cement workers; and numerous other examples of industrial dermatoses. Thus the dermatologist must constantly be on the alert to question his patient not only concerning their vocation but their avocation as well. They should be familiar with, and go into detailed history concerning chemical ingredients of various dyes, powders, rouges and perfumes used in the cosmetic industry. Even after suspecting the diagnosis, patch tests are necessary to substantiate the original

*The headings for the various types of cutaneous allergy (1-6) are taken from Sulzberger, M. B. *Dermatologic Allergy*, Charles C. Thomas, Pub. (1940).

opinion. These tests, as is unquestionably realized from Dr. Simon's paper, must be performed correctly and are not without dangers. If the strength of the solution to which one is testing the individual is too strong, the resulting positive test may be merely a manifestation of primary irritation rather than true allergy. Hence the proper strength of various allergens should be known before testing. Furthermore, patch tests should not be done at the height of an eruption, because not only is it possible to exacerbate the condition, but the individual may become sensitized to materials which he had previously been able to tolerate.

BACTERIAL OR MYCOTIC ALLERGY: Dermatologists are quite often confronted with cases of toxic erythema or erythema multiforme. Upon careful investigation it is discovered that many such cases are the result of some allergic manifestation resulting from foci of infection such as septic tonsils, abscessed teeth, or a diseased gall bladder. These are equally as good examples of allergy as is contact dermatitis but are not often viewed in this light. If these were non-allergic in nature, more individuals would present these cutaneous and mucosal manifestations when they harbored foci of infection. It is only the unusual individual, the one who reacts in a different manner from the normal, who presents this allergic response. Another equally as good an example is the presence of vesicles along the sides of the fingers and palms as a result of an epidermophytosis or athlete's foot. The fungous organism is, as a rule, not recovered from these vesicles because the condition itself is an allergic response from a focus elsewhere—usually on the feet. In such cases, when the fungous infection of the feet is eradicated, the allergic manifestations on the hands (trichophytid) usually disappear.

FOOD ALLERGY: This results in cutaneous and mucosal manifestations such as urticaria, erythema multiforme and infantile eczema.

PHYSICAL ALLERGY: This may result from allergy to heat and cold.

FOREIGN PROTEIN ALLERGY: A classic example of this is serum sickness.

DRUG ALLERGY: This phase of dermatological allergy will occupy the major portion of this paper, and the discussion will be limited only to one phase—namely, dermatitis medicamentosa. By dermatitis

medicamentosa is meant an eruption due to the absorption of a drug or its split product. This absorption may be the result of ingestion, injection, instillation, inunction, etc. It does not include eruptions caused by the external contact with drugs (dermatitis venenata—contact dermatitis—industrial dermatitis). There is not a drug synthesized or found free in nature to which someone is not, or will not in the future, be known to possess some cutaneous or mucosal hypersensitivity. In spite of this assumption, however, cases of dermatitis medicamentosa are relatively rare. Sutton states that they compose approximately three-tenths per cent of the cases coming to dermatologists. Personally, I believe that this percentage is a little too low.

INCUBATION PERIOD: Upon diagnosing a case as dermatitis medicamentosa, one is frequently informed by the patient that such could not be, because the drug had been taken quite frequently for many years and that nothing had ever happened similar to this in the past. The patient's statement is unquestionably correct, but is quite easily explained. The incubation period, during which time the particular individual is becoming sensitized to the drug, varies in different individuals. The cutaneous response to an allergen never occurs the first time the drug is taken. By definition, allergy implies an altered reaction—one different from the normal—as a result of a subsequent contact with some allergenic substance. Thus, newborn infants have negative tests to poison ivy, trichophytin and tuberculin, and only diverge from the normal as they become sensitized to these particular substances. The same thing occurs with drugs. The incubation period may vary from four or five days to as long as several years. Another very interesting aspect is that many individuals cannot understand why they break out when they have taken no drug whatsoever for several weeks. Not only is this possible, but an eruption may flare up months or even years after discontinuing the drug. I have seen as many as three attacks of exfoliative dermatitis from arsphenamine within a period of two years. During this period no further arsphenamine had been administered. Whether the arsenic had been stored in the body, and that individual was constantly resensitizing himself, or whether, having been previously sensitized, he was

intermittently getting small doses of arsenic through other sources such as sprayed fruits, wine, etc., is not known. Although the initial incubation period varies, usually averaging about six to ten days, this is not true with regard to subsequent attacks. After an individual has once become sensitized, a further attack is usually elicited within twenty-four hours. I have seen them appear within several hours after oral medication, and much sooner following intravenous medication.

As a rule, after having once become sensitized to a drug, that individual will flare up every time that drug is taken. This is not always true, however, for refractory periods do exist. I recently saw a case in which the eruption had been proved to be due to sulfanilamide, reproduced on three occasions and yet, after several months, the drug was tolerated in even massive doses without any cutaneous or mucosal manifestations.

DOSAGE: Production of the eruption is not necessarily dependent upon the size of the dose. Infinitesimal amounts may elicit, and larger doses may at times fail to elicit in persons known to possess cutaneous hypersensitivity. The intensity and extensiveness, however, is usually related to the dose. An example was just cited of large doses failing to elicit a reaction in a sensitive individual. An example of an infinitesimal amount of the drug producing an eruption follows: A young woman was known to be sensitive to veronal. Each time she took the drug she would break out with a fixed eruption on both palms accompanied by a sore tongue. This particular individual was hospitalized and immediately given a 0.65 gm. veronal tablet by her obstetrician. Almost immediately there was an emesis and the tablet came up well formed. In spite of this, however, within the next twelve hours the patient presented a fixed eruption involving the palms. This is not a particularly unusual example. It is important, also, to realize that the production of an eruption in an allergic individual is unrelated to either the poisonous or pharmacologic action of the drug.

MORPHOLOGY: It is not known definitely just why the particular pattern of an eruption varies in different individuals. It is well recognized, however, that the same drug may produce a different type of eruption in different individuals. As an

example, phenolphthalein although commonly producing the so-called "fixed" eruption in many individuals, may produce a bullous eruption in another person, and a scarlatiniform reaction in still another, etc. The converse of this is also true, namely, that different drugs may produce the same type of eruption in some persons. Again as an example, scarlatiniform eruptions may be elicited by many drugs, such as sulfanilamide, quinine, arsphenamine, aspirin, etc. In spite of the above seemingly confusing state, the commoner drugs do, as a rule, produce certain types of an eruption. Below are listed some of the more common types. As new drugs are synthesized and their effects observed, this list will unquestionably increase.

SOME OF THE MORE COMMON TYPES OF DRUG ERUPTIONS

(Modified from Sulzberger)

1. ECZEMATOUS ERUPTIONS — arsenic, mercury, quinine.
2. URTICARIAL ERUPTIONS — atropine, belladonna, bromides, the morphine group, iodides, phenacetin, phenolphthalein, salicylates.
3. ERYTHEMATOUS ERUPTIONS — antipyrine, arsphenamines, barbiturates, (barbital, luminal, etc.), belladonna, phenacetin, quinine, salicylates, sulfanilamide.
4. DERMATITIS EXFOLIATIVA — arsphenamines, heavy metals.
5. ERYTHEMA MULTIFORM-LIKE ERUPTIONS — antipyrine, phenolphthalein, salicylates.
6. ERYTHEMA NODOSUM-LIKE ERUPTIONS — iodides, bromides, sulfanilamide.
7. ACNEFORM FURUNCULOID ERUPTIONS — bromides, chlorides, iodides.
8. ULCERATIVE AND VEGETATING ERUPTIONS — bromides, iodides.
9. HEMORRHAGIC ERUPTIONS — adalin, antipyrine, arsphenamines, copabia, ergot, iodides, quinine, salicylates, sedormid, sulfanilamide.
10. PHOTSENSITIZING ERUPTIONS — acriflavin, gold, sulfanilamide.
11. PIGMENT-PRODUCING ERUPTIONS — arsenic, bismuth, gold, silver, mercury.
12. VESICULAR AND BULLOUS ERUPTIONS — antipyrine, arsenic, bromides, choral, iodides, luminal, phenolphthalein, quinine, salicylates.
13. FIXED AND CIRCUMSCRIBED PIG-

MENTED ERUPTIONS*—alurate, antipyrine, arsphenamines, phenolphthalein, veronal, sulfanilamide.

DIAGNOSIS OF DRUG ERUPTIONS: A definite diagnosis of dermatitis medicamentosa can usually be made by correlation of a carefully taken history, certain objective characteristics of the eruption, and by reproducing the eruption with small doses of the drug. In securing an adequate history, one should not be content with asking the individual whether or not he takes any drugs, for often one fails to elicit such a history unless one individualizes with regard to various complaints. Rather than putting such a general question to the patient, it is much wiser to ask if he has headaches and, if so, what he takes for them; if he has difficulty sleeping and, if so, what he does for his insomnia; whether or not he is particularly nervous and, if so, ascertain the type of blood tonic, etc. If this manner of questioning is followed, the chances of securing an accurate history will be greatly enhanced. Among some of the more common characteristics of all drug eruptions are:

(a) Sudden Appearance: It is not at all unusual for the patient in whom one suspects a dermatitis medicamentosa to insist that he was perfectly fine the night before but, upon awakening the next morning, he was "broken out all over." This is quite significant.

(b) Bright Color: Practically all cases of dermatitis medicamentosa exhibit this particular characteristic, especially at the onset of the eruption.

(c) Atypical Distribution: Unless the eruption is generalized or universal, it is quite common to find this particular characteristic.

(d) Symmetrical and Widespread: Even though the eruption may be atypical in distribution, symmetrical areas are usually involved (exception: fixed eruption).

(e) Symptoms: The symptoms are mild as compared with the extensiveness of the eruption. One should always be suspicious that one is dealing with dermatitis medicamentosa when an extensive eruption appears suddenly in the absence of anything other than the mildest of

symptoms. Although this is usually true, I have seen cases in which individuals were critically ill with high fever, nausea and accompanied by marked dehydration. Usually such individuals recover, although many cases of death following sensitivity to drugs have occurred. Goldstein recently reported a case of iododerma with fatal termination as a result of injecting iodized oil for diagnostic purposes.

(f) Mucous Membrane Lesions: Mucous membrane lesions often accompany the eruption. This is not a universal finding but if one examines the oral mucosa thoroughly in all cases of dermatitis medicamentosa, one will be surprised at the frequency of mucosal manifestations.

I should like to say a few words concerning the chemical detection of drugs in the body fluids as an aid to diagnosis. The mere finding of the drug or its conjugate only means that the particular drug has been taken. It does not necessarily imply that it is the etiological agent responsible for the eruption. To clinch the diagnosis, reproduction of the eruption is necessary. As stated above, this occasionally fails and in still other cases it is too dangerous to attempt. Chemical tests are not nearly as accurate as are biologic reactions. Cases of dermatitis medicamentosa from phenolphthalein have been reproduced intentionally on several occasions and yet phenolphthalein could not be detected chemically in the local lesions or in the body fluids.

In conclusion I should like to emphasize the thought that there is no reason to believe that the skin and mucous membranes should be the sole recipients of drug insults. Granulocytopenia, jaundice and purpura are quite frequently encountered as the result of drug allergy. I have seen recurrent toothache in the same tooth following each injection of mapharsen. Headaches have been known to follow certain drugs; recurrent pain in the brachial plexus, and parasthesia of the tongue have likewise been reported as the result of individual sensitization to drugs. Recently I saw a typical case of erythema nodosum with practically all of the classic symptoms including high fever, resulting from sulfanilamide. Since these various symptomatologies unquestionably exist, there is no reason to doubt that occasionally many other vague visceral complaints may likewise be attributed to specific individual drug sensitization. In

*An eruption which recurs in the same site with each readministration of the drug. There may be only one isolated spot or there may be many, but each time the drug is administered that particular spot which reacted previously will react again—irrespective of the fact that new areas may or may not appear. As these areas disappear, pigmentation may or may not be a sequel.

such cases, abstinence from the use of all drugs which the patient had been using would certainly seem to be indicated. Sir William Osler once made the statement that syphilis was the great imitator—that it could mimic practically any organic or functional disease. If this great man were living today, at a time when new drugs are so universally and so frequently synthesized, I wonder if he would not make a somewhat similar statement concerning their numerous untoward reactions.

THE MANAGEMENT OF THE ALLERGIC CHILD

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The greatest recent advance in the treatment of allergic diseases is the complete alteration of our attitude toward them. Formerly, we thought in terms of hives, eczema, hay-fever and asthma. Recently, we have begun to realize that we must think in terms of the individual affected by the allergic state, rather than the end processes for the relief of which that individual consults us. We see that there are many gross alterations in the entire conformity of the individual—in his skeletal development, in his mental health, and in his entire social and physical adjustment that may be attributed to his allergic state. Because of this attitude, prophylaxis is beginning to play a large role in allergy, just as it does in the case of infectious diseases.

No one knows how common allergy is. Estimates are that 10-15% of the population has fixed allergy, and about 50% has minor allergic complaints. As to the age of onset, Ratner states that about 50% of allergy cases seen in children have their onset during the first year; by the fifth year, 80% have begun to show symptoms. Thus, allergic conditions are as common in young infants as they are in older children.

The argument as to whether allergy is inherited as a Mendelian trait or is merely transmitted by the mother through the placenta need not be discussed here. We are certain that there is a familial tendency for certain people to react in an abnormal manner to various agents in their environment. In general, it is this heightened susceptibility, rather than any specific reaction form (such as asthma, eczema, etc.) that is transmitted. We

also know that the fetus can be sensitized in utero by either one of two ways: (1) by passage across the placenta of sensitizing antibodies from a sensitive mother, i. e. substances to which the mother is sensitive, or (2) by the passage of unsplit proteins, i. e., foods which the mother has eaten, to which the fetus will develop his own antibodies.

After the infant is born, the two most common routes of sensitization are the permeable mucous membranes of the respiratory and of the gastro-intestinal tracts. Since these membranes are not totally impermeable to colloids, unaltered allergens enter the blood by these portals and sensitize the individual. These membranes are especially permeable during acute and chronic diseases. As is the case with infectious diseases, there are defense mechanisms against invasion by allergens: the chief ones being the kidneys and the intact skin and mucous membranes and their secretions. However, just as in immune processes, the effectiveness of these barriers varies not only with different individuals, but also at different times in the same individual, depending on his age, general health, and various physical factors. In infancy, it appears to be easier to sensitize skin and mucosa than in later years. Another factor of importance is the tremendous variation in the ability of individuals to react to foreign proteins. Even in serum sickness, which is generally admitted not to be inherited, there is great individual variation in susceptibility. Thus all individuals are potentially capable of developing allergy. The difference between an individual who is called "normal" and one who is called "allergic" depends chiefly on the ability of the individual to react to allergens in his environment, and, to a lesser extent, on the amount of allergenic material that passes his tissue barriers.

If we accept the concept of allergy as being largely an acquired rather than an inherited condition, we have a more hopeful outlook for therapy. We know that the fetus can be sensitized in utero, and that the periods of greatest susceptibility are during illness and also during the first two years of life when the infant is being introduced to new foods and new environmental contacts. Therefore, by careful attention to the mother's diet prenatally, and to the infant's early diet and contacts, we should be able, in some measure, to prevent many allergic disturbances.

Although there is no proof that we can prevent intrauterine sensitization, it would seem rational to begin our prophylaxis with the diet of the prospective mother. She should eat a varied diet, avoiding excess of any one particular food, and especially those foods which have been found to be good sensitizers such as seafoods, nuts, raw berries, and chocolates. Since milk and eggs are common allergens in early infancy, it has been suggested that allergic mothers drink boiled or evaporated milk during the later months of pregnancy and that they avoid an excess of eggs. Allergenicity denatured foods might form a large part of the mother's diet. These are foods whose proteins have been altered by cooking under high temperature in the presence of moisture and thus rendered innocuous. Coagulation of the protein renders most of the antigen insoluble, that which remains in solution being insufficient to bring about protein reactions. In this category of foods we have pablum, corn syrup, dextrimaltose, melba toast and others which are valuable in feeding the allergic child as well as the mother prenatally. The same precautions should be used after the child is born if the infant is breast fed.

Prevention of sensitization to inhalants should be begun with the newborn's first contacts. Eliminate all dust-catchers such as rugs, stuffed furniture, and drapes, and dust daily with an oiled cloth. There should be no pillows in the room, and the infant's mattress should be of long-staple cotton (not animal hair), and covered with an impervious material such as rubberized sheeting. Old blankets which have been repeatedly washed are preferable to new, fuzzy ones, and all linens should be washed to remove the sizing. Avoid using insect sprays which contain pyrethrum, powders containing orris root, and all perfumes. Plenty of sunlight and dry fresh air will help to eliminate molds, and the best heat is radiant heat supplied by a gas or oil furnace. Allow no pets in the house, unless, as Vaughn suggests, they are alligators or goldfish. Woolly, stuffed toys should not be permitted.

We have already discussed the fact that the intestinal mucous membrane of the newborn is especially permeable. For this reason, cow's milk should not be given to the newborn infant in the prelacteal period as many infants are sensitized by the administration of cow's milk

as a supplement or while waiting for the mother's milk to "come in." If some form of cow's milk must be used, evaporated milk is the least dangerous. Most children who are sensitive to milk are sensitive to the lactalbumin or whey protein rather than the casein. Heating with moisture coagulates the lactalbumin so that it can be digested and absorbed as harmless polypeptides and amino acids. Thus, evaporated milk is tolerated by patients who are sensitive to lactalbumin, but unaltered cow's milk, acidified cow's milk, dry powdered milk, and buttermilk are all anaphylactogenic. The caseins of the milks of all animals are biologically related, so that goat's milk may be effective in cases of lactalbumin sensitivity but not in casein sensitivity. Since evaporated milk takes care of lactalbumin sensitivity, there is usually no reason for the use of goat's milk in allergic infants. In allergy to the milk casein, soy-bean preparations, cemac, or other substitutes are valuable.

Special care should be taken in introducing new foods to all young infants. The race among many doctors to see how early solid foods can be given to an infant has resulted in the immature intestinal tract being exposed quite early to a large variety of unaccustomed foods. Simple foods such as oats should be introduced before the more complex cereals. Infants are commonly allergic to wheat or barley so that the introduction of these foods should be delayed. An exception to this rule is made in favor of certain foods which are allergenicity denatured such as pablum, certain prepared cereals, and melba toast. These may be tolerated by the wheat sensitive patient who cannot tolerate wheat cereals, fresh bread, lightly toasted bread, and crackers. Similarly, farina and rolled oatmeal cooked in a double boiler for from 1-3 hours lose their ability to sensitize, but boiled corn meal and boiled rice do not. Corn syrup, dextrimaltose, highly refined cane sugars, and lactose can all be tolerated by the allergic child. When a new food is introduced to an infant, it is a wise precaution to give a small amount and then not to repeat its administration for 3-7 days. Nicholson gives the mother a chart, and lets her check each new food, allowing three days before she repeats the food, and then repeating it three times at three day intervals. Foods consistently disliked or regurgitated should be noted and avoided as it is common to find that these are the foods to which the infant is sensitive as

shown by skin tests. The diet should be diversified and no single food should be eaten to excess. The vitamin intake should not be neglected. If the infant cannot tolerate fruit juices, synthetic vitamin C may be given. Cod liver oil concentrates are less likely to cause difficulty than the natural form, and vitamin D may also be obtained in the crystalline form in solution. It is quite a common and unfortunate occurrence for a physician to become so interested in curing a child's eczema that the strict elimination diet that he uses to effect this purpose results in producing a state of severe malnutrition and vitamin deficiency. With modern knowledge of dietetics there is no excuse for this occurrence. Denatured cereals such as pablum, non-allergic foods such as soybean preparations, and the proper selection of small amounts of a varied diet should form the basis of the regimen. Skin tests may be used to aid in eliminating the chief offenders. Recently, some stress has been placed on the curative value of large amounts of vitamin B in eczema.

Certain alterations in our therapeutic procedures should also be made, especially in the case of the allergic child. The physician is often directly responsible for sensitizing the individual by the injection of serums and administration of drugs. The introduction of alum precipitated tetanus toxoid for active immunization against tetanus has eliminated the need for horse serum in this disease. It should be given routinely in combination with alum precipitated diphtheria toxoid. Other immunization procedures should be given during the first year to reduce the incidence of reactions. Recent chemotherapeutic advances, especially sulfanilamide and sulfapyridine, have greatly reduced the need for serums in pneumonia, meningitis, and a variety of other diseases. It is especially important to protect the sensitizable child from respiratory infections as many a child traces the onset of his asthma to a severe attack of pertussis, influenza, or pneumonia. Measles, which is a common precursor of asthma may be modified by the administration of human convalescent serum or placental globulin. The diet should be carefully controlled when these children are sick, especially in gastrointestinal diseases, as the intestinal mucosa is especially permeable to unsplit proteins at these times. All of the common allergens should be avoided

during these illnesses. In administering blood transfusions to an allergic child, the donor should omit the meal preceding withdrawal of the serum, and preferably he should refrain from eating foods to which the recipient is sensitive for a period of 24 hours preceding the transfusion. Skin testing of the recipient with the donor's blood is a further precaution. In the past, a great deal of useless surgery on the nasopharynx and accessory sinuses has been done. We now know that surgical nasal procedures are worse than useless in allergic conditions of the nasopharynx. Control of the allergic state by elimination of offending antigens and by desensitization will reduce the swelling of the nasal mucosa, permit physiological drainage, and reduce the enlargement of the adenoid and other lymphoid tissue. Ionization of the nasal mucosa, X-ray therapy, surgical excision of polyps, and frequent packing are of little value in the treatment of allergic rhinitis as they are directed at the result rather than the cause. It should be kept in mind that enlargement of the adenoid tissue with consequent symptoms of nasal obstruction may be due to allergy, and that in these cases tonsillectomy and adenoidectomy will be only of temporary benefit, as the tissue will recur. Tonsillectomy and adenoidectomy should not be done during the season of pollinating grasses and weeds as many children are sensitized to pollens for the first time following this operation.

Ideally, the psychologic background of all allergic children should be investigated. Not only does asthma play a role in producing behavior disturbances, but the opposite is also true. Some children use their asthma to wield control over their parents, and can produce an attack at will in order to gain their ends. Stokes says that allergic children can be recognized "almost before being seen by their ceaseless activity, their precocious remarks, their noise, and their desperately inquiring and investigative minds." The allergic parents are apt to have similar tendencies with resulting conflict between parents and children. Improvement of the allergic state results in betterment of the behavior difficulties, lessening of fatigue, irritability, and nervous tension, and the improvement in these characteristics in turn aids the allergic condition. It is interesting that Todd found that the intelligence quotient is temporarily lowered by an active allergic state, although other au-

thers have commented on the apparent higher I. Q. in allergic children.

The tremendous variation in signs and symptoms that may be due to allergy continue to cause us difficulty in recognizing the allergic child. Some of the more common symptoms are frequent sneezing, recurrent head colds, nasal obstruction, rubbing the nose to relieve itching (the so-called allergic salute), coughing, wheezing, headache, attacks of abdominal pain with mucous diarrhea or constipation associated with the ingestion of a particular food, sudden edema, eructation, and flatulence. The infant with colic and the whining, irritable, skinny child who complains frequently of "tummy-ache" both may be victims of gastrointestinal allergy. On physical examination, the allergic child is often thin, with rounded shoulders and winged scapulae, pale water-logged inferior turbinates, overbite or teeth irregularities, high-arched palate, flat malar arches, pin-point papular lesions on the conjunctivae, and excessive lymphoid tissue in the nasopharynx.

In conclusion, let me stress that we recognize allergy just as we recognize any other pathologic condition, by looking for it, and being constantly aware of it every time we see a patient. Let us remember that these conditions are common enough so that we see them every day in our practice, and that they often go unrecognized under a different name. Allergy should not be the exclusive province of the allergist. The pediatrician, internist, otorhinolaryngologist, and, above all, the general practitioner can contribute a great deal toward our meagre knowledge in this interesting and scarcely explored field, and, in return, he will be repaid by a more thorough understanding of his patient and by better therapeutic results.

DISCUSSION

Robert B. Warfield, Lexington: I am glad Dr. Rosenbaum included the pediatrician among the people who must help in these problems, because it gives me some excuse to appear before you. I hope hearing these five papers has been as grand an experience for you as it has been for me. I am afraid in the time allotted to me it will be impossible for me to try to discuss all five papers with any degree of interest, so I will confine my remarks to the field in which I have some knowledge.

I am extremely glad both Dr. Cohen and Dr. Rosenbaum have put before us so clearly the fact that it is not the asthma, it is not the hay-fever, with which we have to deal, but it is

the child or the patient who is suffering from an allergic condition. The approach of the average physician throughout the years has been very superficial, so that the majority of patients have seldom been benefited. I think my first interest in allergy arose from the fact that most of the patients that I saw had been given adrenalin for their asthma or nose drops for their hay-fever, and no effort had been made to find out the cause of these conditions and to relieve the patient of his allergic condition. This is especially true in children where proper growth and development depend on a diagnosis.

The most impressive thing to me in these discussions was Dr. Cohen's description of the allergic child. I think it was so clear that we all must have had individual patients appear before us. Maybe some of us felt a little guilty when he used the term "adenoid facies," for have not most of us referred patients of this type to the surgeon without having considered the essential cause of this condition? I believe it is safe to say that all patients of this type should be considered allergic until they have been proved otherwise, and it is our duty to see that they are studied from the allergic point of view before they are submitted to surgery.

I cannot agree with Dr. Rosenbaum in saying that it was in the past that too much surgery was done; it is certainly being done today. Of course we should not say that all allergic patients do not have indications for surgery in their respiratory passages, but none of them should be submitted to surgery until their allergic problem is completely under control.

Why do we see so many children today of this type? I think the answer is in the fact that the average physician has not learned to recognize these patients as allergic and has not therefore studied them from that point of view. It is the duty of all physicians dealing with children to learn to make a diagnosis of allergy and if they are not equipped, as many of us are not, to do a thorough allergic study, to see that all such children are seen by an allergist. When we realize that about 50 per cent of these children have manifestations of allergy in their infancy, our responsibility becomes clear. As Dr. Cohen said, today preventive medicine is becoming more important. Maybe we should consider it the most important part of our work. Certainly we should prevent these children from growing up as allergic human beings if we can prevent or diagnose their allergy at a very early stage and treat them accordingly.

I was glad to hear Dr. Rosenbaum so thoroughly go into the prophylaxis of allergy especially in cases where the mother, or at least the other members of the family, have allergy. In discussing this problem, I have heard many

doctors scoff at the use of such measures, both in the expectant mother and in the infant before any allergic manifestations have developed. The chief reason for this seems to be that doctors feel that mothers will not cooperate, they will not follow instructions, they think too much is being done. The pregnant mother is being made to do too much and she will not follow instructions thoroughly.

I have often wondered if the problem is with the mothers or rather with the doctors who can't be bothered. Anyone in whose family there have been allergic conditions will go to the last extreme to help prevent her child from having these allergic conditions. Thus we should study Dr. Rosenbaum's suggestions carefully, and see that expectant mothers receive careful instructions.

Edna S. Pennington, Nashville, Tenn.: I have enjoyed the papers this afternoon. We are perhaps closer to this section than Louisville is, and I noticed that Dr. Cohen mentioned that on Labor Day they had a thousand ragweed count per cubic yard of air, and our highest count, which was either Labor Day or the day preceding, was a little over two hundred. This means that in Louisville they have a much higher ragweed count than we have in Nashville, and although I know your count here is much higher than ours, I judge that it is somewhere between the ragweed count in Louisville and that in Nashville.

J. A. Orr, Paris: Dr. Cohen started to tell us something about histamine in the alimentary tract when his time was up. I wish he would speak on that subject again and tell us how he controls the histamine, his treatment of it.

Milton Cohen (in closing): I don't think there is anything special to add. It seems to me that everyone has stressed quite well the importance of considering the patient who has the disease. If we will do that for allergy and other things I think that we will all make satisfactory progress, and I don't believe we will have to have Uncle Sam tell us how to practice medicine.

Armand E. Cohen (in closing): Regarding the question of controlling the histamine reactions, there are several methods suggested. The first, Dr. Milton Cohen has suggested, and perhaps is better able to carry out than I, and that is prayer. The second is to attempt either to neutralize or to slow the absorption until the body mechanism is better able to cope with the histamine. Such drugs as calcium, mineral oil, soricin, and kaolin, are some of the drugs which are used in order to slow absorption. We had great hopes that histaminase, used either by mouth or injection, which will certainly neutralize histamine in a test tube, would neutralize histamine in the body. Frankly, I have been disappointed in its use, and for the most part

I feel that we have to continue to use the drugs, such as those mentioned, that neutralize or prevent the rapid absorption of the histamine.

Dr. Alexander and some of the men in St. Louis have advocated a method of desensitization with histamine hydrochloride, starting with 1:10,000 strength and giving daily injections, increasing it up to about 1 or 2 cc. of a 1:1,000 solution. That has proved helpful and perhaps offers the greatest help of any one therapeutic measure.

Adolph B. Loveman (in closing): I should like to ask that the referring physicians be a little sympathetic with the allergists and dermatologists in treating these allergic conditions. Judging from the talks here one would think the cause is usually easily discovered. This is not at all true. In many cases unquestionably of allergic nature, in spite of painstaking investigations, we are often at a loss to discover the etiology.

THE TREATMENT OF PNEUMONIA IN CHILDREN WITH SULFA- PYRIDINE

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Louisville

The treatment of pneumonia in children with specific serum has, in the past, played a minor role. The chief reasons for this have been (1) the expense of the serum and (2) the necessity for typing the organism in order to administer type specific serum. It is difficult in children, particularly in very young children, to obtain a specimen of bronchial secretion from which the pneumococcus can be properly typed. Specimens taken from the throat and mouth frequently show pneumococci differing in type from that obtained from the blood stream, empyema fluid, or middle ear of the patient.

In 1935, Domagk first discovered the antistreptococcic effect of the Azo dyes. The findings of this investigator were later confirmed by Mietyoch and Klorá through use of these dyes in the treatment of infected mice. It is felt that this discovery constituted a contribution to chemotherapy second only to the discovery by Ehrlich of the spirocheticidal effect of Salvarsan. Realizing the necessity for a compound more specific for the pneumococcus than had hitherto been developed, Dr. A. J. Ewins and Mr. M. A.

Phillips of the May and Baker Laboratories of Dagenham, England, set about to find such a compound. In May, 1938, they compounded formula 693, or Dagenham, which was later given the official name of sulfapyridine. Whitley published the first paper telling of the specificity of this compound for the pneumococcus. In July, 1938, Evans and Gaisford² treated alternate cases of pneumonia with sulfapyridine, reporting a fatality of 27% in the control cases, as contrasted with a fatality of only 5% in the cases treated with sulfapyridine. Flippin³ reports a series of 100 cases treated with this drug in which the fatality was only 4%. From Hartman's Clinic Bennett and his associates reported 40 cases of pneumonia in children, the diagnosis in each of whom was proven by X-ray, and all of whom recovered. Hodes⁴ and associates have reported 71 cases, 33 of which were primary pneumonia and 38 secondary to measles, with excellent results. Mitchell⁵ and associates, in contrasting 23 cases of pneumonia treated with sulfapyridine and 23 cases not so treated, state that the duration of the disease in the treated cases is shortened an average of from three to four days.

Thus far there have been treated with sulfapyridine at the Children's Free Hospital and at the Louisville City Hospital, in Louisville, 37 cases of lobar pneumonia, all of whom have recovered. While this is not a large series of cases and with the further realization that the fatality from lobar pneumonia in children is only 3 to 5% without any specific therapy, it is still felt that it does offer definite suggestion as to the effectiveness of this drug in the treatment of lobar pneumonia in children. Clinically, most patients to whom this drug was administered and effectively retained showed comparatively prompt and definitely marked improvement. The temperature returned to normal on an average of 36 hours after beginning the drug. The patients breathed more easily, the pulse rate returned to approximately normal, and they felt more comfortable. In spite of these obvious improvements in the general condition of the patients the physical signs in the chest ran about a normal course, requiring, in some cases, from one to two weeks for complete resolution to take place.

As yet a reliable dosage of sulfapyridine is largely undetermined. The exact blood concentration of the drug required

to cause a clinical cure is not definitely known. It is the opinion of most investigators that a concentration of from 4 to 7 milligrams per 100 cc. of blood is required. We have seen dramatic clinical cures from remarkably low blood concentrations in patients, while in others much higher concentrations have been necessary. This same thing is largely true when applied to dosage in administering the drug. The same size dose may give high blood concentration in one individual, while giving a low concentration in another. There seems to be an individual variation in absorption.

The following daily dosage for children is recommended by Evans and Gaisford:²

1 to 3 months	-----0.6 grams
6 to 24 months	-----1.5 grams
3 years	-----2.0 grams
5 years	-----3.0 grams

At the Children's Free Hospital and the Louisville City Hospital a dosage of 1.0 to 1.5 grains per pound of body weight, in 24 hours, has been used in children up to 5 years of age. This dosage will work out to about the same as the above dosage recommended by Evans and Gaisford. Some give the entire first twenty-four hour dose at one time. This procedure has been considered a little drastic. We have preferred to give one-half of the first day's total dosage as the initial dose and divide the remaining half of this first day's total dosage into two equal portions, given at four-hour intervals. On the following days, the total day's dosage may be divided into equal portions, given in four to five doses at four-hour intervals. Hodes,⁴ in his cases, administered the drug for from 5 to 8 days after the temperature became normal, while Smith of Bellevue feels that the drug should be discontinued 2 or 3 days after the temperature has returned to normal and started again if the temperature shows a rise. This is the method that is used, because of the possible ill effect of the drug, at the Children's Free Hospital and the Louisville City Hospital.

Often there is difficulty in getting children to take the drug, or to retain it. Bennett¹ and his associates have tried the sodium salt of sulfapyridine, which is very soluble in water, by giving a 2% solution by rectum. They state that such a solution is rapidly absorbed from the bowel and that they have been able to maintain in this way an adequate blood concentration. It is their hope that, in ad-

ministering the drug by rectum, the nausea and vomiting, widely encountered when administering the drug by mouth, may largely be overcome. A sodium salt solution is also being tried intravenously.

Influence of Treatment with Sulfapyridine on Complications: It will take time to prove what, if any, influence sulfapyridine therapy has on the complications that may arise during or following an attack of pneumonia. Without specific therapy, the incidence of empyema as a complication in pneumonia is rather low and experience alone will show what influence this therapy will have on this complication. At the present time it is felt that the drug has no effect on either the prevention or treatment of empyema. In our experience, we have had cases show prompt clinical improvement on beginning therapy and, within a week to ten days, show a recrudescence of temperature with the development of empyema. We have also observed the development of several cases of otitis media in patients undergoing treatment.

Toxic Manifestations: Sulfapyridine is not without toxic manifestations, nor is it without danger. Cyanosis does not occur as often as it does from the use of sulfanilamide and it does not have as much significance, except that one may be misled into thinking that cyanosis is due to pneumonia. Hartman¹ states that the cyanosis encountered during the use of the drug is due to methemoglobin in the blood stream and may be combatted by the use of methylene blue by mouth or intravenously.

Vomiting occurs in about 50% of the patients to whom it is administered, but is not likely to occur with the first dose; hence the reason why it is well to give a rather large first dose. Saline or sodium bicarbonate solution has been given to prevent vomiting with varying opinions as to value. Headaches, dizziness, fainting, mental depression and confusion occasionally occur, but will disappear on withdrawal of the drug.

Anemia, with reduction of both the red blood cells and the hemoglobin, may occur, especially if the drug is continued over a long period of time. The most dreaded and serious toxic manifestation is agranulocytopenia. More often it is of a mild degree and the blood count will return to normal within a short time after withdrawal of the drug, but a few fatal cases have been reported. For this reason, a complete blood picture should be

obtained before starting the drug and repeated at frequent intervals, especially if given over a period of several days. Hematuria has been reported, but clears up on withdrawal of the drug, with the kidney function apparently returning to normal. A morbilliform rash has also been reported, but this, too, clears up on withdrawal of the drug.

It is felt that sulfapyridine is an effective drug in the treatment of pneumonia caused by the pneumococcus when judiciously used. It should be emphasized that it has its dangers, but these dangers can be largely overcome by scrupulous observation of the patient. It should further be emphasized that, although this drug is more or less specific for pneumococcus pneumonia, the physician should not fail to provide such essentials for the patient as **complete rest**, adequate and proper diet, oxygen when needed, and relief from any other symptoms that may arise from time to time.

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DISCUSSION

J. Murray Kinsman: Dr. Nicholson has presented statistics and it isn't necessary to say much more about them except perhaps to call attention to the fact that the statistics are those for all age periods. This is a paper on the use of sulfapyridine in pediatrics and those statistics cover everybody from infants to patients eighty years of age.

He had one hundred per cent recovery. I am not a pediatrician but I believe that the mortality rate in children is less than it is in adults. I think it would be interesting if it would be possible for Dr. Nicholson to dig out, if he can, the mortality rate in children from various forms of treatment. It reminds me that statistics are sometimes misleading. At Atlantic City last spring, I heard Dr. Marshall speak of the chemistry of the drug; he discussed it informally. Talking apropos of the fact that many men are opposed to statistics as being misleading he said, "If you see a patient, and you know

that patient is going to die—he is weak and you have given him up—and you then give him sulfapyridine and he gets well overnight, no statistics in the world will destroy the impression of that recovery.” That is the way I feel. Cases that look hopeless and recover mean more than statistics, sometimes.

In speaking of the treatment of pneumonia, serum therapy should be kept in mind. Cultures should be made. It might be necessary to give serum later.

What can we expect in the future with sulfapyridine? It is toxic; some patients cannot take it. Sixty per cent vomit. There is, as Dr. Nicholson mentioned, a sodium salt of sulfapyridine which is soluble. You cannot give it intramuscularly or subcutaneously. It is like salvarsan. It can be given intravenously. The future lies in the development of the preparations which can be given intravenously and subcutaneously, because of the difficulties in the absorption of sulfapyridine. The sodium salt of the drug is not yet on the market but it probably will be shortly.

Now, we have been using sulfapyridine by rectum. So far results are disappointing for only a small degree of absorption has been noted. In a communication from Dr. Hartman in St. Louis he says he has been using this drug by rectum and getting amazing results: a blood concentration of 4-6 mg. per 100 cc. and more than that when the drug is continued for quite long periods of time. The brightest prospect lies in giving it by some other route than the stomach route for there is so much irregularity in absorption of the drug.

Spirochetes and Fusiform Bacilli in Smears.

—Breazeale and Greene determined the incidence of spirochetes and fusiform bacilli in throat and gum smears of school children of different social and economic levels, of enlisted men and of college students. Of the 719 smears examined, 465 (65 per cent) did not contain the organisms while 254 subjects, or 25 per cent of the group, did harbor the organisms. The lowest incidence has occurred in a group of school children from homes of superior social and financial levels and the highest incidence was among a group of Mexican children from homes of low social and economic levels. These organisms were found in 41 per cent of a group of Negro school children and Indian children at a boarding school. Of the young adults 27 per cent of the enlisted men (Arizona National Guard), 25 per cent of the female college students and 36 per cent of the male college students harbored the organisms.

RUPTURE OF THE URINARY BLADDER

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Urologists and surgeons the world over have come to realize the serious consequences produced by the extravasation of urine, no matter where the location, and the ruptured bladder takes the prominent role as being the most common source. This condition merits the classification of being an emergency of the first order, and delayed diagnosis or procrastination in treatment proves fatal. The subject is not a new one for the literature dating back to Hippocrates (460-359 B. C.) contains reports of bladder rupture which notoriously terminated fatally. Harrison in 1836, reviewed ruptured bladders extensively for the first time, and it was not until 1876 that the first survival of a patient with a ruptured bladder (following laparotomy) was reported (Walther of Pittsburgh).

ANATOMY: The bladder lies in the anterior recess of the pelvis and when empty is protected by the symphysis pubis. The distended bladder extends above the symphysis which makes it more vulnerable to traumatic injury. It is entirely extraperitoneal and in only one small area on the vertex is the peritoneum firmly attached, the remainder of its surface being covered loosely by peritoneum which extends over the vault and lateral walls to the floor of the pelvis. The peritoneum also covers the posterior wall, and in the male is carried down to the seminal vesicles and then is reflected backward over the recto-sigmoid to form the recto-vesical pouch. In the female the peritoneum extends down to the level of the internal os, and from there it is reflected over the uterus to form the vesico-uterine fossa. The space between the bladder and the symphysis is known as the space of Retzius, and contains areolar tissue which is thought to have an unusually high absorptive quality for toxic material. It is easy to see how extravasated urine and blood could extend unchecked into this loose peri-vesical and peri-rectal tissue, and downward to the perineum, scrotum, and penis, or upward back of the anterior abdominal wall. The planes taken by extraperitoneal extravasation of urine can be the same as those followed by urine from

rupture of the posterior urethra.

ETIOLOGY: Rupture of the bladder is classified as either being (1) extraperitoneal, or (2) intraperitoneal. The etiological factors are divided into two groups: first, those due to blows, falls, or compression injuries; and second, perforation from within or without. Let me call your attention again to the fact that the distended bladder stands a greater possibility of being ruptured from external blows, falls, etc., than the empty bladder which is fairly immune to injury save for instrumental, bullet or knife penetrations. Although I have never seen one, spontaneous ruptures are reported and usually have as the predisposing factors such things as ulcerations, diverticula, interference of nerve supply, and neoplastic infiltrations of the bladder wall; probably in the presence of some obstruction to the outflow of urine (prostatic hypertrophy, strictures, etc.) which produce over-distention. Blows, kicks, etc., are common, but the automobile is probable the most frequent etiological factor now-a-days. Lifting of heavy weights or straining at stool may also be responsible. Expulsion of gas during a transurethral resection may be a factor. It is interesting to note that in a series of cases of ruptured bladder reported by Campbell, 36% had fractures of the pelvic bones. On the other hand, an analysis of a hundred and sixty-six cases of fractured pelvis at Bellevue Hospital reveals that 15% of these had ruptured bladders.

SYMPTOMATOLOGY: A history of injury or previous urinary difficulties, if obtainable, may be of great value. If the rupture is extraperitoneal the most common symptoms are pain in the bladder region from the symphysis to the umbilicus, and the passing of either a scanty or large amount of bloody urine; or in some cases, no urine at all. If the rupture be intraperitoneal the history may be that at the onset, of acute pain in the lower abdomen followed immediately by shock, which may subside.

PHYSICAL DIAGNOSIS: The physical signs and findings may range anywhere from slight pain on pressure over the bladder region, and the finding of blood in the urine, to a clinical picture of profound shock or coma, depending on the age and location of the extravasated urine. For simplification it seems advisable to arbitrarily classify the physical findings according to the location and age of the injury (early, 2 hours; late after 2 hours). (1) Ear-

ly extraperitoneal rupture may show local tenderness over the region of the bladder, together with the presence of blood in the urine as the only findings.

(2) Late extraperitoneal rupture will show evidences of extravasated urine and blood either in the anterior abdominal wall, perineum, scrotum, or penis, together with bloody urine (voided or obtained by catheter), increase in leukocytes and fever. If very late, the picture of uremia may be present.

(3) Early intraperitoneal rupture may produce slight evidences of intraperitoneal irritation, possibly the detection of free fluid in the abdomen and bloody urine.

(4) Late intraperitoneal rupture will give definite evidence of peritonitis, definite evidence of free fluid in the peritoneal cavity, fever, leukocytosis, bloody urine, and perhaps shock with low blood pressure, thready pulse, pallor and weakness; or perhaps, uremic coma. In all these groups, unless the rupture be spontaneous, there is in addition, external evidence of injury or fractured pelvic bones. When intra and extra peritoneal extravasations are concomitant, the above pictures are combined.

DIAGNOSIS (INSTRUMENTAL): Instrumental methods of diagnosis fall into four groups: (1) Catheters, (2) Cystography, (3) Cystoscopic, and (4) Intravenous Pyelography.

(1) The Catheter Method of diagnosis, which means the passage of a sterile catheter and the determination of the amount of urine obtained, is very unsatisfactory and often misleading. The information gained by this method is variable since anywhere from a small quantity of bloody urine, to a quart or more of fluid, may be gotten by catheter. Fluid obtained in quantities may be coming from the peritoneal cavity, or large gut, by communication with either of these, through the bladder wall. Likewise the injection of a measured amount of sterile solution per catheter, with the determination of the amount of fluid refunded, is unreliable since blood clot or papillomata may plug the catheter. Again, it is possible that all the fluid injected may return and still there may be rupture of the bladder with urine free in the peritoneal cavity; and all because a small hole in the bladder has become temporarily sealed over by gut or omentum.

(2) Cystographic (A) Air (Vaughn & Rudnick method), (B) Radio-opaque solution.

(A) Aerographic determinations are made by injecting air in the bladder through a catheter, and this followed by an X-ray flat plate of the abdomen. However, if this method is used, a preliminary plain film before injection should be made as a control. After injection, gas shadows should be sought for about the bladder region, peritoneal cavity, and under the diaphragm.

(B) In my limited experience, the method that has proved of greatest value in the diagnosis of rupture of the urinary bladder, has been the injection of an adequate quantity of some sterile radio-opaque solution through a catheter, followed by an X-ray flat plate of the abdomen and pelvis. Extravasation of this solution can be accurately picked up by X-ray, leaving no doubt as to whether or not rupture exists. If a portable X-ray unit is available, this method can be accomplished without moving the patient from his or her bed, which may be an item of great importance in fracture cases.

(3) Cystoscopic: This method has been employed by many urologists and condemned by some few. It is a good means of diagnosis but not always practical, particularly when concomitant pelvic and hip fractures prevent removal of patient to a cystoscopic table. Again, bleeding may be so profuse as to obscure vision. Also, ruptures extending into the urethra may make the passage of a rigid instrument difficult or impossible. Then the question of anesthesia in the male, for cystoscopic examination, is also a problem. It might be added that 90% of ruptured bladders occur in the male.

(4) Intravenous Pyelography: Some men claim good results by the use of Diodrast intravenously for determining bladder rupture, while others brand the results obtained as unsatisfactory. It eliminates the possibility of contamination, which, after all, is not too important a factor since immediate operation is imperative on discovery of rupture. I have had no experience with this procedure.

TREATMENT: Once rupture of the bladder is established, whether it be intra or extra peritoneal, prompt surgery is imperative if the patient's condition permits. Shock here, as in other conditions, must be treated first. The important principle is the establishment of adequate suprapubic bladder drainage, as well as peri-vesical drain-

age. Peri-rectal, perineal, and scrotal extravasations, if they exist, should also be drained adequately. Suture of any intraperitoneal communication should be accomplished. Extraperitoneal tears should be sutured if practical. It is the opinion of most men that intraperitoneal exploration should be the next step in this type of case, even though the vesical rupture is known to be extraperitoneal. Co-existing injury or pathology of any of the intraperitoneal organs is obviously the reason.

COMPLICATIONS: The early complications of ruptured bladder are usually hemorrhage, shock, infection, and peritonitis. The late sequelae may be osteomyelitis and stricture of the urethra in cases where the tear has extended thus far.

In closing let me emphasize by repetition that it is of the utmost importance to know definitely if rupture of the urinary bladder is, or is not, present, when first this condition is suspected. Any method that will determine this for you is the one to employ. In any case of fracture of the pelvis, or where there is external evidence of injury that may have perforated the bladder, the integrity of the bladder wall must be established, and, if ruptured, immediate surgery resorted to if the patient's condition permits. Delay in these cases proves fatal.

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Effects of Pure, Commercial and Crude Benzenes.—From experimental tests to determine the comparative physiologic effects of pure, commercial and crude benzenes, Schrenk and his associates find that crude benzene produced the least physiologic action. Pure and commercial benzenes had about the same physiologic effect, the latter producing a slightly greater effect on dogs and the former a somewhat greater effect on guinea pigs. The physiologic response to pure and crude benzenes was much the same. The response of the animals was characteristic of benzene poisoning, and the physiologic effect apparently was due primarily to the benzene content of the benzenes and not to impurities.

DIFFERENTIAL DIAGNOSIS OF THE
ACUTE EXANTHEMATA

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The exanthemata or eruptive fevers have so many symptoms in common during the prodromal or initial stage that a differential diagnosis is often quite difficult or perhaps impossible, in fact one may not even be able to tell he is even dealing with one of the exanthemata.

They are by no means new diseases but little if anything more is known as to their symptomatology and their exact etiology than has been known for many years.

The first two that we will consider are rubeola or, as it is often called, red measles and rubella or German measles which is known by ever so many names. The prodromal stage in rubeola or true measles is much longer than in rubella or German measles, being 3 or 4 days, while in rubella it is very short and insignificant, in fact, it is so insignificant and causes such a mild constitutional disturbance that it is as a rule overlooked, while in true measles or rubeola the opposite is found. In other words the constitutional symptoms are often quite severe.

In true measles we find as prodromal or initial symptoms, marked coryza, dry harsh cough, diffuse lacrymation, photophobia, marked feverishness, which soon becomes remittent in character, the remission occurring during the morning hours, a general hyperemia of the pharynx, soft palate, uvula, etc. Some observers claim to find a bluish skimmed milk appearance of the mucous membranes of the mouth and throat which is never found in rubella or German measles.

The fever in true measles usually begins with the coryza and the catarrhal symptoms of the upper air passages and may reach 103 or 104, while the fever in rubella rarely reaches higher than 102, or less, at any time during the entire course of the disease. In rubella the patient usually complains of a slight sore throat, noticeable on swallowing, this rarely if ever occurs in true measles or rubeola. In true measles we find after not more than 48 or 72 hours after the initial symptoms what most observers consider the pathognomonic symptoms, namely Koplik's sign or spots.

Read before the Muldraugh Hill Medical Society.

These are pinkish or dark red spots with a white or bluish white center about the size of a pin head and found on the inner side of the cheek or buccal mucous membrane. They are usually about one-fourth of an inch in diameter and are more dense near the molar teeth. They are said never to occur in a case of German measles. The exanthema or eruption in rubeola appears on the forehead or cheeks not earlier than the fourth day of the disease and often not so early, counting as the first day the day the cough and coryza begin, while the eruption in rubella begins not later than the second day of the initial symptoms, if we have any initial symptoms before its beginning at all.

The color of the rash in rubella is a pale red or pink while that of measles is a much darker red. The eruption in rubella shows no tendency to group in crescent or half moon shapes while in rubeola or true measles it does. The rash in true measles usually remains very distinct for at least five or six days while in rubella or false measles it usually begins to fade on the second or third day after its appearance. The superficial lymph glands of the neck nearly always become swollen in rubella while in rubeola or true measles this is very rare unless complicated by some chronic throat condition, as chronic tonsils, etc., which flare up during the measles.

Rubella presents no characteristic temperature curve while in rubeola or true measles there is a decided temperature curve being as stated heretofore 103 or 104 for the first two days and then a remission for two or three days until the beginning of the eruption when it may reach, and rapidly at that, 104 or 105 and remain high until the rash is well developed, after which it usually declines by lysis but sometimes by crisis. In measles when the rash is fully developed on the face it often causes the face to become swollen to the extent that the patient is unrecognizable, this does not occur in rubella or false measles. In rubella both complications and sequella, with the exception of the enlargement of the lymphatic glands of the neck, are extremely rare while in true measles the complications, sequellae or both may assume a serious nature, the most common being of the ears, lungs or eyes or all combined.

We will next consider the differential diagnosis between variola or as it is commonly known as smallpox and varicella or

chicken pox. This is not so difficult, especially after the appearance of the eruption, unless it be a mild discrete case of smallpox or a severe case of chicken pox.

The prodromal symptoms of smallpox are usually quite prominent such as fever, severe lumbar pains, prostration, while in chicken pox they are very mild, perhaps so much so that they may be overlooked until the appearance of the lesions. In chicken pox the lesions are usually very superficial and seem to involve only the epidermis. Frequently the first symptom of the disease will be a thin walled blister or vesicle filled with a serous watery exudate which can usually be evacuated through a single needle puncture of its wall, while in smallpox the vesicles are deep seated and the tissues beneath the vesicles have a distinct shot like feel. By many observers this shot like feel alone is considered sufficient to make a differential diagnosis between the two diseases. The lesions of chicken pox because of their superficial nature are easily destroyed while in smallpox because of their deep seated nature and the difference in the contents of the vesicles this can not be done. In chicken pox we find lesions in all of their various stages of development and perhaps on the same part of the body at the same time varying all the way from macules to pustules, while in smallpox we find all macules, vesicles or pustules at the same time. Umbilication of the lesions in their later stage is the rule in smallpox while it is a rare exception in chicken pox. This accounts for the telltale scars following smallpox, while we rarely find more than one or two or none following chicken pox, and if we do have scars or a scar following chicken pox it is usually found on the face and near the eye brows so far as our experience goes. In chicken pox the lesions are as a rule not so numerous as in smallpox, being perhaps not more than 25 or 30 or less, during the entire course of the disease. The lesions in smallpox appear first on the parts of the body not protected by the clothing as the face and neck and the hands while the lesions in chicken pox appear first on the trunk and especially the back. The difference in the temperature records is quite characteristic, high in smallpox from the very beginning and without the remissions as in measles, usually being in typical cases 103 or 104 or higher and rapidly falling after the pox are filled. The fever in chicken pox may be absent, or at least unnoticeable, and rarely

reaches higher than 102 or less during the entire course of the disease. Also in smallpox the fever precedes the appearance of the lesions or eruption by three or four days, in chicken pox the fever comes with the eruption. This is a valuable diagnostic point to remember. And finally those who have been successfully vaccinated against smallpox or have previously had smallpox are immune to it, but this neither modifies nor protects him from chicken pox. They are certainly separate and different diseases.

We will next consider the differential diagnosis between scarlet fever and the other exanthemata and also between scarlet fever and some other diseases and conditions with which it might be confused as to the differential diagnosis. There is such a wide variation in the clinical manifestations of this disease, especially if viewed from the appearance of the rash or exanthema only, that a diagnosis would indeed be a very difficult matter. The mild cases of this disease as you all know in former years was called scarlatina and was not considered by many clinicians as being scarlet fever or being one and the same disease so far as etiology was concerned, now few take this to be true. It seems that what formerly was known as scarlatina is now known as scarlet fever simplex. Malignant scarlet fever or as it is also known as hemorrhagic scarlet fever is hard to diagnose from the fact that the patient usually dies before any differential diagnostic clinical symptoms make their appearance. Fortunately this form of disease is rather rare and when it is found occurs in children of two years of age or less, undernourished and in the worst hygienic surroundings. Even though it is a hopeless condition and little can be done to save these little patients it is well to remember the symptoms which are: A very high fever, 105 to 107, convulsions, marked cyanosis, hemorrhages from the mouth, nose, genitals and bowels causing tarry stools, a very high pulse rate being not less than 160 or perhaps 200, if you can count it at all. The pulse irregular and often intermittent and all of these symptoms usually soon end in death.

Scarlet fever differs from measles by the early appearance of the eruption being not usually more than 24 or 48 hours after the initial symptoms and also by the characteristic temperature curve of measles. In the early stage of scarlet fever we find a much more rapid pulse than in measles or

in fact as a rule in any of the eruptive fevers. In scarlet fever we do not have the characteristic cough, coryza, lacrimation and photophobia that we have in measles, while in measles we do not have the marked gastric symptoms and the rapid pulse that we have in scarlet fever. We do not have the strawberry tongue in measles nor the Koplik spots in scarlet fever. The strawberry tongue appears early in scarlet fever and is considered its pathognomonic symptom. Its appearance is too well known for me to take up your time to describe it. The difference in the appearance of the membranes of the throat in scarlet fever, measles and diphtheria is often confusing. In measles we usually have a simple hyperemia of the membranes of the throat, tonsils, soft palate and uvula while in scarlet fever and diphtheria we have hyperemia of these parts plus edema. In scarlet fever with a false membrane, which we sometimes have, on the tonsils we are some times in serious difficulty when we attempt to differentiate it from diphtheria were we to look at the throat only but remember we do not have a strawberry tongue nor a rash in diphtheria. Some observers claim that the two diseases are sometimes found at the same time in the same case. We have never seen such a case.

The physical appearance of the rash in scarlet fever is not just exactly like the rash in the other exanthemata. It is diffuse, fiery red (from which the disease takes its name), and punctate in appearance. If you rub your hand over the rash before desquamation these little points give it a sort of goose flesh feel.

Scarlet fever with very mild or no throat symptoms might be difficult to differentiate from certain drug rashes, here again look for the strawberry tongue and also don't forget to ask if the child has recently been taking any kind of medicine. The most common ones to cause a rash are quinine, belladonna, opiates, coal tars or derivatives of coal tar, iodides, etc.

MEASLES: Prodromal, peculiar, dry, harsh, hacking cough, profuse lacrimation, photophobia, fever with marked morning remissions of 4 or 5 days duration. Fever becomes higher. Look for Koplik's spots. Rash soon begins to appear on the forehead and cheeks, fever may reach 105 or higher at this time. Rash usually develops rather rapidly, dark red in appearance, has a soft velvety feel, crescent arrangement. usually fades in about one week.

GERMAN MEASLES: No prodromal stage of any significance. Early involvement of the superficial lymph glands of the neck, slight sore throat. Rash a pale red or pink and usually begins to fade within 2 or 3 days after its first appearance. No marked febrile symptoms at any time.

SMALL POX: Prodromal fever of 103 or 104 from the beginning, marked prostration and a rather severe backache, usually lumbar in character. Fever does not remit as in measles. After 2 or 3 days macules begin to appear usually first on the face. Do not forget their shot like feel. Fever may reach 105 or 107, macules soon become pustules then fever falls by crisis. Then marked umbilication of the pustules soon takes place.

CHICKEN POX: Prodromal symptoms as a rule of no significance. Fever usually about 102 or less, appears with and not before the rash. Rash not deep seated in the skin appears as a rule on the parts of the body protected by the clothing first. No shot like feel to the papules. Macules, pustules, and papules may all be present at the same time. A rapid and insignificant convalescence so far as complications and sequelae are concerned.

SCARLET FEVER: Prodromal symptoms, a marked gastric disturbance, vomiting, perhaps convulsions, especially in small children. Temperature may or may not be very high. Pulse is too rapid as a rule for the amount of temperature; may be 140 or 150 and temperature may be only 102 or 103. Rash appears early as a rule. Do not forget the strawberry tongue which usually appears early and even in the mildest of cases. Usually marked desquamation and a slow tedious convalescence with complications and sequelae as a rule.

In conclusion we beg to repeat that a diagnosis of the eruptive fevers is by no means always an easy matter and before the appearance of the eruption may be beyond human skill.

In order for one to become proficient in this matter requires long years of experience and perhaps the witnessing of many epidemics which may enable one to acquire "that something" or as some one has called it "that other thing" which may enable him to solve the presenting problem.

When sleep puts an end to delirium, it is a good symptom.

It is better that a fever succeed to a convulsion than a convulsion to fever.—Hippocrates.

HEMORRHOIDS: LOCAL AND SYSTEMIC CONSIDERATIONS

RUFUS C. ALLEY, M.D.

Lexington

Hemorrhoidal disease is "of more frequent occurrence perhaps than any other to which the human body is subject, few individuals having attained the meridian of life who have in the interval remained entirely exempt from it" (Wm. Bodenhamer, 1860).

In proctologic practice about one-third of all patients have hemorrhoids as the primary disease, while an additional one-third of all patients have hemorrhoids which are secondary to the other rectal disease.

The underlying cause of hemorrhoids, both internal and external, is a chronic inflammation and weakening of the hemorrhoidal veins and this promotes varix formation. Hereditary weakness of these veins may also play a part. Secondary factors may aggravate the condition, among which are increased back pressure from straining at stool, (either constipation or diarrhea), being on feet for long hours, pregnancy and labor, abdominal tumors, etc.

The first symptom of hemorrhoids usually is the passage of red blood with or following bowel motion. Then, as the piles become larger, protrusion through the anus occurs. Symptoms other than rectal are often observed, the most frequent of which are constipation, nervous exhaustion and dull aching pain in sacral and gluteal areas. Rectal disease is a frequent cause of low back pain. Vague digestive disturbances are not unusual. Simple hemorrhoids are not in themselves painful but pain appears when complicating lesions occur involving the sensitive anal skin.

The sensory nerve supply to the anus and rectum is closely associated with that of the urogenital tract and, because of this, subjective symptoms originating in one of these areas may be referred to the other. Lesions involving the posterior urethra, particularly the prostatic utricle are apt to produce abnormal sensations projected to the rectum. Likewise, rectal lesions may be responsible for urogenital symptoms.

It is well to emphasize that hemorrhoids are only one disorder which may cause passage of blood from the bowel and that accurate diagnosis is essential for the pa-

tient's welfare. Bleeding should always arouse suspicion of cancer and this suspicion should persist until examination has revealed the condition to be otherwise. It is folly to attempt diagnosis from the history alone because symptoms referable to the lower bowel are notoriously misleading. It has been noticed time and again that symptoms suggestive of hemorrhoids have been caused by cancer; the reverse is also true. When rectal diagnoses are to be made it is imperative that digital and endoscopic examinations be employed, supplemented, when necessary, with roentgenography.

The treatment of hemorrhoids, once the diagnosis is established, is not a difficult problem. Proctologists generally agree that treatment by injections of sclerosing solutions is effective and desirable in selected cases, chiefly in hemorrhoids that bleed, those which are not too redundant and those with which serious complicating anorectal disease does not exist. In the cases with considerable redundancy or with other important anorectal lesions surgical excision gives best results.

Most patients with hemorrhoidal disease also suffer with constipation. This should receive proper attention regardless of the method of handling the hemorrhoids. As a rule cathartics should be avoided. Emphasis should be placed on anticonstipation diet, regular bowel habit, etc., supplemented, when necessary, with adequate doses of an artificial bulk preparation. After hemorrhoidectomy or sclerosing therapy a spontaneous increase in bowel activity is usually observed and, for this reason, constipation is more easily controlled.

I would caution the physician who becomes enthusiastic concerning the apparent ease of injection treatment of hemorrhoids. This method, like a sharp scalpel, is useful when properly employed but may be dangerous in the hands of one who has not carefully prepared himself in the science of clinical proctology.

DISCUSSION

Wm. J. Martin, Louisville: This method, like a sharp scalpel, is useful when properly employed but may be dangerous in the hands of one who has not carefully prepared himself in the science of clinical proctology.

This might well be the text of any essay on proctologic procedure.

This might well be the text of any essay on the way, was one of the earliest of the itinerant proctologists. His earliest writings ap-

peared in 1847, from Kentucky. This man practiced proctology in Kentucky as early as 1837. He was practicing in Paris, Kentucky as late as 1842 and from this time to 1847 he was in Louisville. After this he sought greener pastures and spent the winters in New Orleans, the summers in Louisville. In 1854 an announcement in the "Louisville Democrat" said that he would be in New York during the summer instead of in Louisville.

Bodenhamer stated that hemorrhoidal disease is of more frequent occurrence than any other to which the human body is subject. How near this is to the truth you may judge for yourself. Dr. Alley observes that hemorrhoidal disease comprises one-third of proctologic practice. If you depend on the patient's statement when he presents himself, one might be safe in saying that practically 100% of the people who present themselves with ano-rectal disorders state that they have "piles" or hemorrhoids. By this he may mean anything from constipation to cancer.

As Dr. Alley says, bleeding is usually the first symptom of hemorrhoidal disease. Bleeding is also usually the first subjective symptom noted by the patient of carcinoma in this region but, as you know, is usually a rather late manifestation. It is well to remember that bleeding may be coming from both. Bleeding may also come as a result of scratching a pruritis or from too strenuous cleansing methods following defecation.

Statistics reveal the startling fact that approximately 20% of patients who have rectal or sigmoid carcinoma have been treated or operated on for hemorrhoids during the duration of their symptoms.

The essayist states that once the diagnosis of hemorrhoids is established treatment is not a difficult problem. It is true treatment is not difficult if one is familiar with the anatomy of this area and the various lesions to which this area is subject. Much research has been done recently in proctologic diseases which has changed our ideas of the anatomy of the anal sphincter and its mechanism to a large degree.

The injection of a sclerosing solution is effective in well selected cases of, and I want to emphasize this—internal hemorrhoids. Internal hemorrhoids are formed by the superior hemorrhoidal veins. External hemorrhoids are formed by the inferior hemorrhoidal veins. The injection of a sclerosing solution into the mass formed by the superior hemorrhoidal veins will have no effect on the inferior group of hemorrhoidal veins. Neither will the surgical removal of external skin tags, thrombotic external hemorrhoids or a few marginal anal varicosities suf-

fice to clear up a case of combined hemorrhoids. One of the above mentioned procedures is usually what has been done when people say that they have a recurrence of hemorrhoids. The speaker has no knowledge of any case recurring in his practice where the usual procedure of a clean surgical dissection and excision of hemorrhoids has been performed.

The day of the man who injects some type of solution in this area for whatever the patient complains of is fast fading. More of an armamentarium than a syringe and a long needle is needed for the practice of present-day proctology.

Granville S. Hanes, Louisville: Both essay and discussion were interesting and instructive. Hemorrhoids are very common occurrences as we all know. They vary widely in their appearances and the most successful treatment for their relief requires no little variation in the method that should be employed. Small piles may be very painful while large ones may be practically free from pain; the pain depends upon the degree of disease in the recto anal tissues regardless of the size of the tumors. If the anal muscles are only slightly irritated and remain free from unnatural contractions there is but little pain; on the contrary, much irritation of the anal tissues produces hypertrophy of the muscles and their contraction on the affected tissues may produce excruciating pain. This is especially true after operation. It is in the diseased cases that we have anal strictures following operation for hemorrhoids. If this complication is not perfected the patient will have more or less unnatural sensations in the ano-rectal outlet. The anal muscles must be dilated during convalescence. This is usually quite painful unless local anesthetics are employed. I usually invert the patient and pour four or five drops of 15% cocaine in the anal opening and within a short time dilatation can be done with but little pain. If the patient is very sensitive a little novocain can be injected and then dilate. It is the part of wisdom to have the patient in a perfectly normal state when he is discharged.

Thrombotic piles are so called on account of the locality in which they occur. They are no more piles than if they occurred in the leg or elsewhere in the body. They may be small or large according to the looseness of the tissue in which the blood vessel breaks. If the vessel is large and forces blood out until the tumor is very hard the pain would be quite severe and the patient would seek immediate relief.

When the clot is new it can be frozen with ethyl chloride or injected with novocain, using a very small needle; then a quick incision made

in the directions of the perianal folds or at right angles to the anal outlet the clot will burst out or, if it does not, a little pressure will deliver it easily. Do nothing more except to place a little cotton next to the anal opening. In almost 100% of these cases nothing more is necessary, the wound will heal readily. Rarely blood will continue to seep out into the wound; this is due to the lack of clotting properties in the blood. It is then necessary to clean out the original cavity and then apply tannic acid, cotton and a pressure bandage. This complication seldom arises.

If the clot has remained for sometime it is then adhered to the surrounding tissues and is much more difficult to remove. It may be necessary to dissect away the entire tumor and then suture the wound or leave it open to heal by granulation.

I doubt that extreme nervousness and pain is greater in any part of the human body than in the ano-rectal region. It is unfortunate that patients thus affected receive so little attention. This is due to the fact that the outlet of the bowel is, we might say, the most secretive part of the human anatomy and on account of its peculiar function it is approached and investigated with less interest and thoroughness than any other part of the body. The nerves here are as delicate and sensitive as in any tissues in the human anatomy. If they were not so constructed it would be impossible to have complete control of the bowel as we do.

The cause of prolapsing hemorrhoids is universally said to be due to straining, especially straining at stool. This is true only in a secondary sense. The primary cause is due to a partial or complete destruction of the connective tissue which supports the sub-mucosa in its normal relation to the rectal wall and surrounding tissues. When this support is destroyed straining will easily produce piles.

There can be no doubt but that the abundant germ life and toxins that are constantly present in the sigmoidal and rectal tissues dissolve or destroy the connective tissue and when there is straining the unsupported tissue easily prolapses. Patients who have diarrhoeas and strain violently at stool never have hemorrhoids because there is an extra amount of fibrous tissue formed due to the inflammation in the rectal wall. If the patient should have large piles when dysentery or diarrhoea begins, of course, there will be prolapsing or straining; otherwise, as I have said, the straining will not produce prolapses.

If any irritating agent is injected properly into the ano rectal tissues and the bowels are

kept in such a state that there will be no straining at stool a new fibrous tissue is formed which supports the mucosa and the hemorrhoids disappear or fail to appear when there is straining. The same is true with regard to rectal prolapses. Where there is a prolapsing of the rectum the destruction of connective tissue is more extensive and there is a larger mass comes down when there is straining. I have never seen a prolapse so large that it could not be absolutely relieved by injection of proper irritating agents provided the patient does not strain when the treatment is being given. If injections are made and the prolapse is strained down each day the new fibrous tissue cannot become organized because it is breaking down as fast as it is formed. In such cases the bowels should act with the patient in the dorsal position. The bowel should be kept fairly loose and an injection of hot water given when the bowels act. This is a very successful procedure for rectal prolapses.

Numerous operations have been devised for the relief of this condition but not one has proven satisfactory. I have treated many patients who have been operated on by one method or another with total failure while injections, which have been described, have given complete relief. A few months ago I had a letter from a patient whom I first treated twenty-two years ago. He was completely relieved. This patient had been operated on twice before without success.

Rufus C. Alley (in closing): To summarize the discussion of hemorrhoids, excluding Dr. Hanes' remarks on prolapse, we might say that the important thing is diagnosis. Once the diagnosis is established the treatment is a relatively simple matter.

Lipase Determination in Serum of Diabetic Patients.—Gobel determined the lipase content of serum of twenty-one diabetic patients. Determinations were made before and after insulin and dietetic therapy, in a control case before and after dietetic treatment. Measuring of the lipase content was made with a stalagmometer according to Rona-Michaelis. Before treatment, increased lipase was found in the serum along with increased blood and urine sugar values according to the severity of the diabetes. The lipase content decreased following treatment along with the blood and urine sugar values. On the basis of these results the author assumes a disturbance in the fermenting processes of fat metabolism in diabetes mellitus proportional to the rate of sugar secretion and outpouring of lipase into the serum.

THE ETIOLOGY AND MANAGEMENT
OF POSTERIA POSITION

WINN HORD, M.D.

Maysville

Six years ago Dr. W. E. Caldwell, and his associates, instituted at the Sloane Hospital, in New York City, an investigation of the influence of pelvic size and shape upon the mechanism of labour.

From clinical experience it seemed that certain pelvic abnormalities not adequately described in obstetrical texts played an important part in the cause of dystocia, and increased the difficulty in operative delivery. They believed that if the obstetrician could appreciate the size and shape of the pelvis, it would be possible to predict the type of difficulty which might occur in labour, or to terminate the labour with less trauma to the mother and child by the use of mechanical procedures best suited to the individual case.

Their study was first directed to the large collection of skeletal material at the American Museum of Natural History, New York; the U. S. National Museum, Washington City; The Hanna Museum of Western Reserve University, Cleveland; and the Department of Anatomy, College of Physicians and Surgeons, New York City.

It soon became apparent that the accepted obstetrical classification of pelvis failed to give a true concept of the marked variation in pelvic shape, which existed in skeletal material.

Thus the use of stereoentgenograms which gave the three dimensional visualizations of the pelvic cavity from the inlet to the outlet.

From a morphological standpoint this study showed that pelvis conformed to one of four characteristic inlet shapes, namely, the long, narrow oval; the round; the flat; and the wedge-shaped types.

Large numbers of pelvis conform to the intermediate shapes, between these extreme types. It seemed advisable to consider these four extreme shapes, as standard or parent types, and to devise a terminology which would not only designate these types, but would be flexible enough for combination with each other to designate the equally important borderline forms.

A review of the literature revealed that

Weber in 1820 and Von Stein in 1844 had recognized these four groups, but had not considered the borderline types. Turner in 1885 described three of these four groups, but failed to suggest the wedged-shape type.

The long, narrow oval type appeared to resemble the pelvis of the anthropoid apes, and Turner considering this type a primitive form, had shown it to be more commonly found in primitive races. The round type conformed to the classical female pelvis, the gynecoid form; the wedge-shaped pelvis simulated the appearance of the male pelvis, the android type; and the flat type

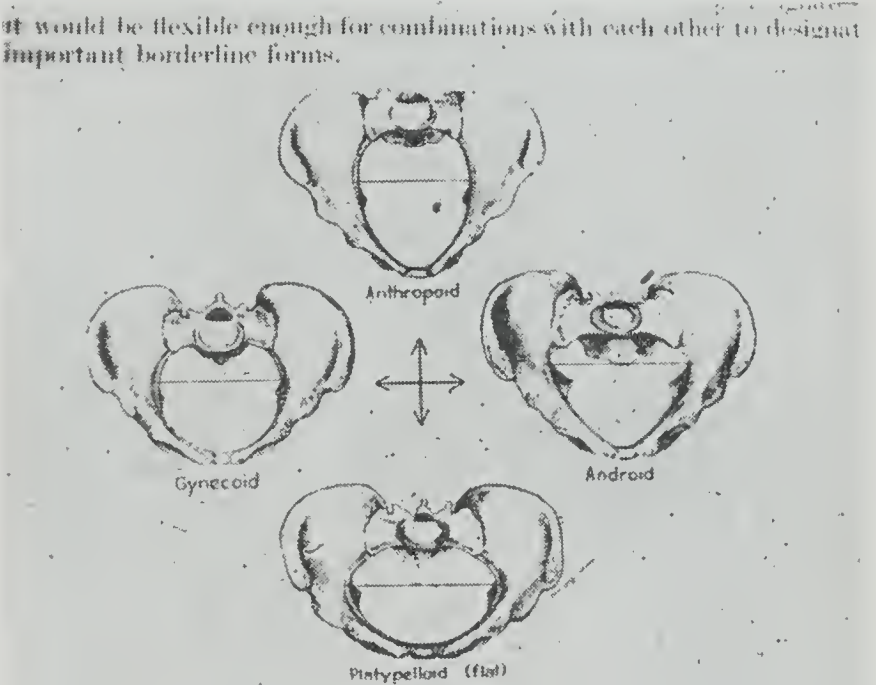


FIG. 2.—THE FOUR CLASSICAL PELVIC TYPES
or standard or parent types divided into an anterior and posterior segment by a

or platypelloid type, which has a wide or transverse oval appearance. Many pelvis are, in shape, borderline types containing characteristics of each of these four groups.

FREQUENCY OF FOUR GROUPS

Type:	White	Negro
Anthropoid	23.5	40.5
Gynecoid	41.4	21.1
Platypelloid	2.6	1.7
Android	32.5	15.7

The anthropoid type is more commonly found in the negro race. The android type more frequently found in the white race. The platypelloid type, though rare, is twice as common in the white race.

Most obstetrical texts state that the oblique anterior position is more commonly found at engagement, than the transverse or oblique posterior position. This table shows, however, that transverse positions are three times as frequent as the oblique posterior or oblique anterior position. The influence of pelvic shape at the inlet is also shown in gynecoid and the android types,

Read before the Kentucky State Medical Association at Bowling Green, September 11-14, 1939.

TABLE II.
THE RELATIONS OF PELVIC SHAPE TO HEAD POSITION AT THE PELVIC BRIM

	Posterior oblique position %	Transverse position %	Anterior oblique position %	Direct occipito- anterior position %
Anthropoid	28.5	37.5	17.0	17.0
Gynecoid	16.0	69.0	20.0	1.0
Android	20.5	71.0	8.5	0.0
Combined	18.5	60.0	16.0	5.5

transverse position occurred in 70 per cent of the cases. In the anthropoid types there is a decrease in transverse position to 37.5, and a marked increase in the anterior oblique position to 34 per cent, and the posterior oblique position at 28.5 per cent.

The most significant fact revealed by this table is the frequency of spontaneous delivery in the gynecoid forms, and the frequency of forceps deliveries and Caesarean Section in the android forms.

The efficiency of anthropoid pelvis is demonstrated by the decrease in incidence of this type and its borderline forms from the spontaneous to the Caesarean section group. In 500 cases four rachitic flat pelvis were noted, all in the Caesarean section group.

Thomas and others have shown the frequency of occurrence of the occipito posterior position in the anthropoid pelvis. This is correct, but the anthropoid pelvis is an efficient pelvis, and there is usually spontaneous rotation or arrest in the occipito posterior position at a low level with the caput in sight. Further study also showed, that in medium forcep deliveries, the arrested posterior position is found chiefly in the android and the flat pelvis. The long, oval shape is present at the mid pelvis, to encourage this position by the presence either of converging side walls in the android type, or of a backward sacrum in the flat forms. This observation is important and stresses the value of a knowledge of pelvic shape in the treatment of mid pelvic arrests.

In my experience, which is that of the average Doctor, doing forty (40) to sixty (60) deliveries per year, or a total of approximately thirteen hundred (1300) deliveries, occipito posterior presentations cause greater harm to both mother and child than all the other complications of pregnancy combined; and we, as general practitioners, are less efficient in their recognition and management than we are in other complications of pregnancy and delivery.

During the first ten years of practice no occipito posterior positions were encountered, at least none were recognized as such. During the last seventeen years, fifty-eight (58) persistent occipito posterior positions have been presented, or one in every sixteen deliveries. Five continued as posteriors, and were delivered as such, baby's face to mother's pubis.

10 per cent were delivered in hospitals.
90 per cent were delivered in homes.

50 per cent of home deliveries were done alone, as other assistance was not available at the time. Two mothers had two successive occipito posterior deliveries. Practically all of these mothers have since delivered babies in normal l.o.a. positions. Fifty per cent of posterior occipito deliveries, were in primiparae. Occipito posterior positions when delivered as such, usually caused deep laceration of perineum, and sphincter muscle.

It seems to me that occipito posterior babies are slightly larger than babies in L. O. A. position. Mortality of two mothers, both moribund when seen in consultation;

TABLE III.
DISTRIBUTION OF PELVIC TYPES ACCORDING TO THE METHOD OF DELIVERY

	Anthropoid	Gynecoid	Android	True Flat
Spontaneous	10	37	10	2
Low forceps	16	32	16	1
Low mid forceps	13	12	21	4
Mid forceps	12	15	35	1
Caesarean Section	11	12	41	2

both were colored women, and multiparous. Mortality of seven infants, four of whom were dead when seen in consultation.

In occipito posterior positions, the first stage is very greatly prolonged; the pains are usually weak or irregular, as to time and strength. Early rupture of the bag of waters is common. The head does not descend with each succeeding pain.

The contour of the abdomen is different, a decided flat space above the symphysis, or a crease running across the lower abdomen is usually seen. Foetal heart is often heard low in the flanks. The mother is usually of the fleshy, short, heavy-set type. Fifty-two (52) of the fifty-eight (58) women, were heavy-set, or fleshy; six (6) were in the definitely slender type; four (4) were in the colored race; fifty-two (52) were definitely short-waisted. This observation, however, was not verified by any measurements.

With a given case, say, of suspected occipito posterior position, the large fontanel will be close behind the pubis, and the small fontanel deep on the rectum. This, however, is not always easy for me to determine; so, I introduce the gloved, left hand feel behind and above the pubis for the child's face and nose. Thus the presentation continued, the patient is anesthetized and manual rotation done. The gloved, left hand is introduced in the parturient canal, grasping the baby's right shoulder, and scapular region, then rotating from mother's left to right side, and anteriorly; assisted by counter pressure of the outside, right hand, from mother's left to right. Then, child is allowed to be delivered in normal L. O. A. position, or pelvic forceps may be used at this stage.

If head is low on the pelvic floor, and adequate hollow of sacrum obtains Scanloni Manoeuvre may be performed. However, if there is mid pelvic arrest, it is often in the android type pelvis, or flat pelvis, and the baby should be rotated very early, and not allowed to descend too far.

In conclusion, if we, as Doctors, would consider all flat, heavy-set, short-waisted primiparous, as potential occipito posterior cases and look for that position, especially when accompanied with weak and inferior pains, and slow progress, we would diagnose many of them, thereby saving much suffering and injury, and sometimes death to mothers and babies, and much chagrin to ourselves.

DISCUSSION

Leon Higdon, Paducah: From the standpoint of frequency of occurrence, difficulties encountered and responsibilities involved, there is no condition more important in obstetrics than the occipito-posterior. Dr. Hord has brought to our attention the studies of Caldwell, Malloy and associates at Sloan Hospital who have done so much to stimulate interest in further study of pelvic types, resulting in a better understanding of the difficulties and potential difficulties to be encountered in the passage as well as the passenger during labor. Unfortunately, so many others do not clearly conform to a definite type. Usually it is in these borderlines types that our errors of judgment occur and the greatest difficulties develop.

While it is true that occipito-posterior presentations do not always result in serious dystocia, yet we may well assume an attitude of active expectancy.

As Dr. Hord has pointed out, the frequency of occurrence of the occipito-posterior in the anthropoid type is happily adjusted by the efficiency of this type for spontaneous rotation. The android and the flat pelvis produce the highest percentage of the operative deliveries. With such knowledge, active expectancy can be more intelligently applied.

Of course other causes enter into the development of this difficulty, such as pelvic inclination, pendulous abdomen, a large pelvis and a small child, so that the natural mechanism of labor of balanced resistances become inoperative; prolapse of an arm in front of the occiput; an abnormal pelvic floor which gives a wrong bend to the parturient canal or does not form a good gutter; persistent asynclitism. DeLee says that "Not all the causes are known or understood. Given a cause, the child soon becomes molded to the abnormal position, the uterus adapts itself to the child, and the condition is less easily corrected as labor goes on."

While anterior rotation and spontaneous delivery are the rule in occipito-posterior presentation, it does follow that difficulties may not arise in connection with them at times of a serious nature. In the first stage of labor following premature rupture of the membranes or inefficient uterine contractions, such a prolongation of this stage of labor follows and a state of exhaustion is reached prior to the second stage. It is important to conserve the mother's energy during the period of slow dilatation by the administration of adequate analgesic drugs and possibly by intravenous glucose therapy if it is unusually prolonged.

The most troublesome problems present themselves in the second stage, and these will ordi-

narily be concerned with variations in the movement of internal rotation, labor coming to a standstill if it fails to occur at all, or is incomplete, and possibly arrest also resulting should the occiput rotate posteriorly into the hollow of the sacrum. These variations in the mechanism of rotation may be the result of inefficient uterine contraction, either primary or as a result of inertia following a prolonged labor, when under such circumstances the natural force will not suffice to bring about normal delivery and artificial aid will become necessary. However, in describing this fact, it is to be remembered that a longer period of time will be necessary for rotation through the long arc of 135 degrees than in the anterior varieties.

In a vast majority of instances when interference becomes necessary, while the head is arrested in occipito-posterior, the methods of normal rotation followed by a single application of forceps will result in a safe and satisfactory delivery. Occasionally there will be a failure. Then one should resort to the application of forceps to the head as it lies in its oblique position, according to the method of Scanzoni or Bill's modification.

T. Atchison Frazier, Marion: One thing that surprised me about Dr. Hord's paper was the frequency of the occipito-posterior position. Out of about 2,000 labors that I have attended in 45 years of practice I have seen five, one of them in consultation. Each case was delivered spontaneously in my practice. The one in consultation was delivered with forceps by Dr. Cook who was the attending physician.

In looking over the literature upon this subject, and the reports of lying-in hospitals, and seeing the high percentage of occipito-posterior positions, I cannot understand why we fellows down in the country don't find a large percentage in our practice.

As far as spontaneous rotation is concerned, I have never seen that take place and I have never been able to rotate one.

Winn Hord (in closing): The percentage of occipito-posterior deliveries in my work runs one in every 600. In the Cincinnati General Hospital last year they had 2,352 deliveries and approximately 265 were posterior and 68 remained persistent posteriors which required operative delivery; four required versions; four cesarean sections; 35 Scanzoni deliveries, and 18, I believe were manual rotations, and the remainder delivered as occipito-posteriors.

Doubtless they allow their cases to go as far as they will, and many rotate themselves. Perhaps a good many do rotate themselves before we are called in to deliver them, for it is not unusual to be called to attend the patient for

the first time during the second stage of labor.

I know that it is not practical for many of us to have precision stereoscopic plates made of our cases, but it shows what is being done in some of the larger centers and is a goal we should strive to attain. I want to again emphasize that short-waisted, fleshy, primiparous are potential occipito-posterior cases.

SWINE ERYSIPELAS IN MAN

DAVID L. JONES, M.D.

Fulton

Rosenbach in 1884, described a disease which he called Erysipeloid, and has been called Erysipeloid of Rosenbach. More recent investigators in the United States and Germany, in their study have found the germ to be identical in Erysipeloid in man and Swine Erysipelas in the hog. The milder form in man is usually spoken of as Erysipeloid. The organism is a gram positive bacillus, short coccoid, and about the size of the tubercular bacillus. The organism on culturing becomes less virulent, and longer than the original. For culture, take a section of skin from an infected area, or some of the serum from one of the bulla, and add to hormone broth and calf's brain media. The organism grows either aerobic or anaerobic, but best in the absence of oxygen. The organism is classed by some bacteriologists as human, swine, and the mouse type, but if classified or named for the host in which found, would also have the crab, fish and the oyster type. The bacillus lives on dead animal matter, and the decomposition will not kill it. The germ is found in the slime on fish in the salt water along the Atlantic Coast and the Great Lakes of the U. S. A., as well as other sections of the country. Fish and the crabs contract the organism feeding on dead matter along the coast. The bacteria will live one year in damp alkaline soil, fumigation will not always kill the germ, and it will live on salt pork for a long period of time.

The organism becomes less virulent when the host is the rabbit, and more virulent when it is the pigeon. The infection is spread by birds feeding with infected hogs, transfer of infected hogs from one farm to another, or by drainage water from an infected soil on to other farm land.

Glasser on his investigation, reported

(Read before the Kentucky State Medical Association at Bowling Green, September 11-14, 1939.)

that fifty per cent of the hogs are carriers of the swine erysipelas bacillus without manifesting symptoms of the disease. German and Poland authorities state that, "a farm once infected will always be infected."

The disease is classified as an occupational disease, but in order to come in line of compensation, the employee must show evidence of a wound, as a wound is necessary for entrance of the infection. The classes most often infected are farmers, butchers, veterinarians, laboratory workers, cooks, fishermen, and workers in button factories using infected bones. The usual time of the year is from May until September, but not always is this true. Doctors George B. Lawson and H. S. Stinnett reported among workers in a bone button factory, Southern Medical Journal, December 1933—247 cases. Of this number, 237 were the typical skin infection, 7 eye infection and 3 cases of infection of the bronchial tubes, from the bone dust in manufacturing buttons. Linwood L. Richter, M.D., has reported 1,000 cases of Erysipeloid among commercial fishermen on the northern coast of New Jersey.

Incubation period is one to five days, the skin being the usual site of infection, but in some instances, the bronchial mucous membrane and the eye. The infection gains entrance through an abrasion. The gastro-intestinal tract is seemingly immune.

The prognosis is usually good, the duration is from five days to six weeks, but in some instances may have relapse or the case may become chronic and run a course of five months. If the patient succumbs, death is usually due to toxemia or an endocarditis.

Symptoms: The infection is usually on the hands, in mild cases, no constitutional symptoms are present. At first a dermatitis bluish-red discoloration, swollen, intense burning and itching. The joints are stiff and tense. The infection spreads over the hands and up the arms, as a rule no lymph glands are involved. In the more severe cases, constitutional symptoms, fever, lymph-adenitis, arthritis, pain, intense itching, and burning in the affected parts, fingers become swollen, a tense feeling in the involved area and an edematous bluish-red dermatitis. The itching is so great that sleep is disturbed and the patient becomes discouraged. In some cases blebs, also a desquamating dermati-

tis. As the infection spreads, the skin clears from the center. Pains in the back, a general weakness, and arthritis. The bronchial type has the symptoms of a bronchitis, without much constitutional symptoms. The eye infection presents symptoms of conjunctivitis.

In an epidemic observed by Benczes (61 cases), the erysipeloid was limited to the fingers, hands, and forearms in 70% of the cases, but in the remaining 30%, the face, feet and legs below the knees; in one case (a boy four years old) even the skin on the abdomen showed livid foci the size of the child's hand.

Treatment: Treatment has not been satisfactory, no medication has seemed to modify the course. Local remedies of warm antiseptic solutions, quartz light, ichthyol ointment, and 10% salicylic acid ointment has been used with results by some. The swine erysipelas serum was first used by the Germans who reported good results. Some have used the serum in the localized infection by making numerous punctures around the lesion and injecting .25 cc. at each point and using as much for the total as six to eight cc.



claiming to stop the spread of the disease. The Germans used 1 or 2 cc. per kilogram body weight, injecting in the gluteal region or the subcutaneous tissue of the abdomen. Jensen-Salsbery Laboratories U. S. A. anti-erysipeloid serum is given in 10 cc. to 20 cc. every day until symptoms begin to clear up, which will require 20 to 40 cc. of serum. I gave a total of 60 cc. in one case with good results, and no relapse. Cases that do not get enough serum may have a relapse of the condition, and if so, then give the serum, may get a violent serum sickness.

Case Report: F. W. came to me for treatment January 25th, 1939, white male, age 50 years old, weight 155 pounds, height 5 ft. 7 inches, farmer, well nourished, smokes about twenty cigarettes a day and doesn't drink alcoholics. Temperature 98 at 1:50 P.M., blood pressure 110 systolic and 70 diastolic. Urine negative chemically and microscopically. Heart, lungs, stomach and abdomen negative. Liver not palpable, slightly constipated, appetite good, nervous, doesn't sleep well, due to an intense itching and burning of the skin from a generalized dermatitis, except on the face. Some of the worst areas on arms and legs was desquamating and blebs. The dermatitis was a dark redish-blue in color. Inguinal glands enlarged and tender. Lower limbs swollen from the knees down to and including the feet.

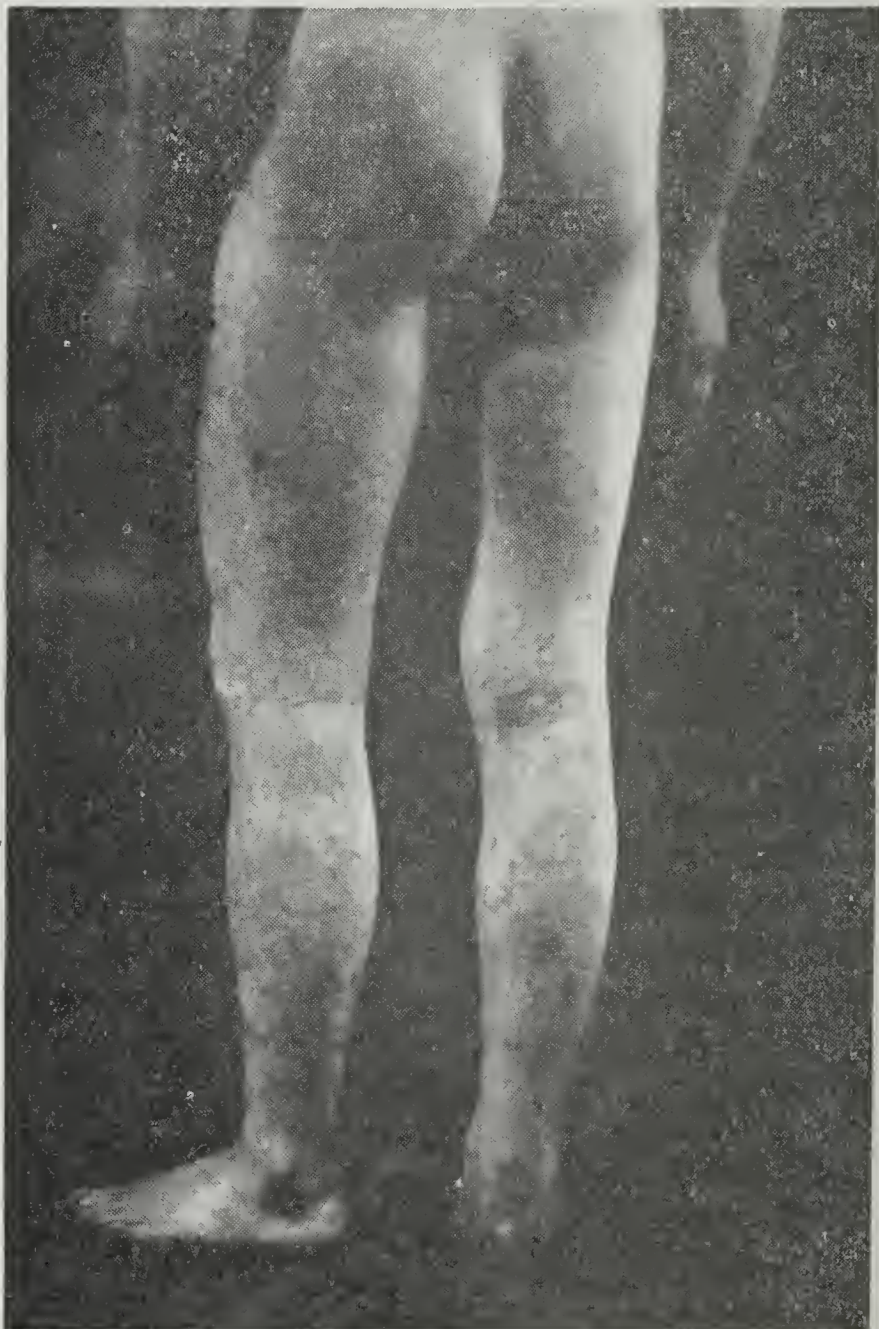
The blood test was negative for syphilis. A blood culture was negative for any type of bacteria. A smear made from a bleb on the leg showed a small bacillus, some were intracellular (in the epithelial cells) and some were extra-cellular.

I received the following history from him, that he had had some hogs on his farm that had an exfoliative dermatitis. The first herd showed symptoms of infection February, 1938. The hogs would appear sick for three or four days, would not eat much, lay around, and then would develop a generalized dermatitis. The condition became chronic, but finally all got well but one that was so bad that he killed it. Again in November, 1938, he had another herd that took sick like unto the first described, which finally became chronic and then got well. In the spring of 1939, he had another lot of hogs that took sick like unto the above described and J. R. Hilman, V.S., and I went to the farm to see them after they had had swine erysipelas serum about a week or ten days

before, and were better. He made a diagnosis of swine erysipelas, and we made pictures of a part of the sick hogs.

Mr. F. W. treated the hogs himself in the first two epidemics with sulphur and linseed oil, and trimmed off the worst of the exfoliating skin with a pair of shears. November 15th, 1938, he helped a neighbor butcher some hogs that had had the dermatitis like unto his hogs, that had some lesions on their ears that had not healed. He made sausage from some of the meat. November 20th, 1938, he developed a dermatitis on his legs and in about one month the condition had spread until it was generalized over the lower limbs, the body front and back, and the upper extremities. He first treated himself with sulphur ointment, and later was treated by physicians.

I was sure that his dermatitis was contracted from his hogs or his neighbors, that he had helped butcher. I consulted J. R. Hilman, V.S., with F. W. about what the dermatitis in the hogs was, and he made a diagnosis of swine erysipelas, but the hogs had been killed that were not well, so we did not see them. As before mentioned, in the spring of 1939, Dr. Hil-



man and I saw the last herd of hogs on the farm of F. W. with the exfoliative dermatitis and he made the diagnosis of swine erysipelas.

Treatment: I prescribed carbolated Lassar's paste locally, sulfanilamide internally from January 25th to February 2nd, with no results. He was given nine quartz light treatments from January 28th to February 22nd, and five mapharsine .04 gram in the vein from February 2nd to February 25th, and his condition did not improve.

March 1st, he was given an intradermal skin test with anti-erysipeloid serum made by Jensen-Salsbery Laboratories, U. S. A., and he had no local reaction. He was given 10 cc. of the serum subcutaneously in the lower quadrant of the abdomen. March 2nd, he received a second dose of 10 cc. Due to not being able to get the serum, he did not receive another dose until March 5th, the third dose of 20 cc. and March 6th, the last dose of 20 cc. which was a total of 60 cc. serum. His condition improved and no other treatment was given while taking the serum.

March 7th, he came to me with a violent serum sickness, an intense urticaria, edema of the tongue, uvula, epiglottis, asthmatic rales over his chest, and dyspnea. His condition was grave and looked as if he would die. He was kept under close observation for twenty-four hours and was given .5 cc. adrenalin chloride solution 1:1000 when needed, atropine sulfate 1-100 gr. every four hours, ephedrine sulfate 3-8 gr. every three hours, saline laxatives, and the following prescription:

R Sod. Bicarbonate	dr.iv.
Sod. Bromide	dr.iv.
Tr. Belladonna	dr.ii.
Aq. peppermint q.s.	oz.vi.M

Sig. Two teaspoonfuls every 3 or 4 hrs.

Locally carbolated calamine lotion for the itching.

The dermatitis cleared up and has remained well. The worst lesions on his lower limbs and some on his body as well as his arms, remained a discolored redish-brown, like unto the skin at the site of an old varicose ulcer. The induration cleared up and color is improving, with no remaining constitutional symptom as a result of his disability. I last saw and examined him August 5th, 1939.

DISCUSSION

A. T. McCormack, Louisville: I saw an extensive epidemic of swine erysipelas here in Warren County on one farm a great many years ago. I didn't know what it was. The proprietor of the place and one of his hands had an attack, and I succeeded in getting Dr. Melvin from the Bureau of Animal Industry to send a man down there. At that time, of course, they weren't able and I wasn't energetic enough to do the work as carefully as Dr. Jones has done his, and we were not able to make the connection definitely. I didn't know at the time, but I knew what it was as soon as I read his paper, and I am grateful to him.

I want to say that Dr. Jones has given us an example of a thing that has been done by Koch, that has been done by Pasteur, and that has been done by doctors in small places all over this country by close clinical observation and the application of scientific methods to the differentiation of disease, and he has delivered a piece of research work, to my mind, that is of enormous value, because there evidently are a great many of these cases, a great many more than we have suspected, and I think he has made a very important contribution.

David L. Jones (in closing): On an adjoining farm to that of F. W.'s, a neighbor had some hogs that had dermatitis, and the neighbor's wife also developed a dermatitis. She went to St. Louis to a dermatologist, but they stated, "No diagnosis was made of her condition." She recovered from the dermatitis, but has a permanent discoloration of the skin at the site of the lesions. I did not see the lady or the hogs belonging to her, but F. W. said, "His hogs' trouble was like unto that of his neighbor's hogs and his dermatitis like that of his neighbor's wife."

I mentioned the line of treatment I gave this man before, finally using the serum, because I was sure that it would occur to some: "Why did you not try sulfanilamide, arsenic, and actinic ray?" I did all of that, but no improvement was made. The greatest task for me was bringing him out of the serum sickness.

Milo S. Campbell made the following statement before the Dairymen's League in New York: Today we of the United States are living in a country that has more net wealth than all of Europe combined. We are living in the midst of food a plenty, clothing a plenty, labor at wages the highest ever known in all the world, at a time when a day's labor will purchase more necessities of life than ever before. Notwithstanding this we have more unrest, more discontent, more strikes, more fault-finding than the country has ever experienced before.

ANEMIA AS A PROBLEM FOR THE PEDIATRICIAN

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Louisville

The hematopoietic tissues of children are labile and in them the anemias are accompanied by variable clinical findings. The normal hematopoietic standards of adults do not apply to children. It is therefore necessary to restate briefly the normal figures for children before discussing the changes associated with the anemias.

Normal hematologic standards for children:

The hemoglobin averages 20 gms. at birth, 10.5 gms. at three months and 11.5 gms. per 100 cc. at five months (14.5 gms. being equivalent to 105 per cent Haldane). Mackay showed that there is a more severe "physiologic" decrease in the hemoglobin of premature than full term babies. In the former the hemoglobin often falls to 7 gms. per cent at three months. The hemoglobin usually increases to about 12 gms. per cent by the fifteenth month, and remains at that level until adolescence. Osgood and Baker found no significant differences in the average values of children 4-13 years old, with respect to age or sex.

The erythrocytes at birth vary from 6.5 to 7.5 million per cmm. They decrease to 5.5 million during the first two weeks, then maintain a fairly constant average of 5.0 million during infancy and adolescence. Nucleated red cells are normally present and reticulocytes average 10 to 20 per cent during the first week of post-natal life. Macrocytosis and anisocytosis are prominent features for at least two months and a high mean diameter may persist until the eighteenth month (Van Creveld). An inexperienced observer may be misled by the macrocytosis which probably accounts for the unsubstantiated reports of pernicious anemia in infants.

The leucocytes average 18,000 per cmm. at birth, 14,000 at three months, 12,000 at one year. Kato and Washburn both reported considerable variations above and below these averages in individual cases. After the first year the leucocytes decrease steadily to reach the average adult figure of 8,000 at the twelfth year. Immature leucocytes are normally present

at and soon after birth. During the first week there is a polymorphonuclear leucocytosis, while from the seventh day until the third year the lymphocytes account for a majority of the white blood cells. In children, therefore, it is advisable to express the differential white cell counts in terms of absolute rather than percentage figures.

The platelets are present in normal adult number at birth. Coagulation time is prolonged during the first ten days, especially from the second to the fifth day, (Rodda, Beveridge). The bleeding time in infants is the same as in adults (2-5 minutes).

Classification of the anemias of children:

The anemias of children vary somewhat at different age levels and many are of unknown etiology. A satisfactory classification is therefore difficult and any classification is only tentative at present. According to the mechanism of production, the anemias of children may be grouped as follows:

- I. Dyshemopoietic (Deficiency) Anemias.
 1. Iron Deficiency.
 - a. Lack of ante-natal storage.
 - b. Lack of supply.
 - c. Interference with assimilation or utilization.
 2. Vitamin C Deficiency.
 3. Thyroid Insufficiency.
- II. Hemolytic Anemias.
 1. Fetal Erythroblastosis.
 2. Neo-Natal Erythroblastosis.
 - a. With Jaundice.
 - b. Without Jaundice.
 3. Miscellaneous.
 - a. Acute Hemolytic Anemia (Lederer).
 - b. Subacute Hemolytic Anemia (Von Jaksch).
 - c. Acholuric Jaundice.
 - d. Sick-cell Anemia.
- III. Anemias Due to Intercurrent Disease.
 - a. Hemorrhagic States.
 - b. Infection.
 - c. Neoplastic Disease.
 - d. Nephritis.

It may be objected that the erythroblastoses are not of proven hemolytic origin. They have been grouped as erythronoclastic to emphasize the fact that they are usually associated with damage to the erythron. It is not possible to discuss all of the above anemias in this paper. The deficiency anemias are the most

common and respond most satisfactorily to prophylactic and remedial therapy, and the following discussion is therefore limited to a consideration of some of the dyshemopoietic anemias.

THE IRON DEFICIENCY ANEMIAS OF CHILDHOOD

Most investigators are agreed that the causes of the iron deficiency anemias of infants are threefold: (a) deficient ante-natal storage; (b) insufficient supply during the milk feeding period; (c) interference with assimilation or utilization because of infection or nutritional disturbances. The first two factors are now well understood and account for a considerable proportion of the so-called nutritional anemias of infancy.

Ante-natal iron storage occurs mainly during the third trimester of pregnancy. The growing fetus is dependent upon its mother for its iron needs during intra-uterine life and the first few months of extra-uterine life. Therefore the prevention of the iron deficiency anemia of infancy is dependent upon therapy directed at maternal iron metabolism. Ferrous sulfate therefore should be administered to expectant mothers during the third trimester of pregnancy. This is especially indicated where twin pregnancy is suspected, where premature labor is anticipated, in multiparae with large families and in anemic expectant mothers. Abt and Nagel were unable to affect favorably the iron deficiency anemias of premature infants by the prophylactic administration of iron to the mother, but Mackay showed that "physiologic" anemia is not inevitable in premature infants. The prophylactic administration of iron in such circumstances is a fine example of team-work between obstetrician and pediatrician. It is important also as the only known method which will effectively tide the infant over the early months when there is normally a negative iron balance.

Post-natal supply of iron during the milk-feeding period is equally as important as an assurance of adequate ante-natal supply. Stearns and Stinger have shown that healthy breast-fed infants show a slight positive iron balance from the second to the ninth month, but infants on cow's milk formulae are in negative iron balance, which is unaffected by administration of egg yolk or spinach supplements but can be corrected by feeding an iron containing cereal or the administration of iron and ammonium citrate.

Hutchison suggested that iron should be given in large doses because hemoglobin synthesis is not apparently aided by iron stored in the liver but depends upon utilization of iron which overflows into the circulation. Stewart recently investigated the relationship of gastric acidity and nutritional anemias in infants. She found that achlorhydria is more likely to follow than to cause the anemia in children. Some investigators have suggested that copper should be combined with iron in the treatment of the iron-deficiency anemias of children. Evidence is increasing, however, that copper does not affect iron absorption appreciably.

The role of infection on the absorption and utilization of iron is not well understood. Infection does interfere with normal iron metabolism. It is also important to keep in mind that anemia in infants is commonly accompanied by an increased incidence of infection and infection in anemic children is characterized by delayed convalescence (Mackay, Vaughan). This association of anemia and infection is especially important in view of the fact that the nutritional anemias *per se* are seldom associated with severe constitutional symptoms. An infant may therefore be considered constitutionally weak and subject to frequent "colds" when actually the infection is due largely to a preceding or intercurrent iron deficiency anemia.

Clinical and Hematological Manifestations: Anemia in infants and young children is surprisingly well borne. There may be only mild constitutional disturbances and pallor is seldom a marked feature. The anemia may go unrecognized until established by hematologic investigation. The red blood cells are hypochromic and usually microcytic. The erythrocytes may be decreased only moderately until after the anemia is well established. Usually the hemoglobin is reduced more markedly than the red cells and a low color index is the rule. Following the institution of iron therapy anisocytosis, polychromatophilia and reticulocytosis become quite marked. The red cells then revert to normal size and hemoglobin saturation usually is established in advance of erythrocyte increase, so that the color index may be normal or slightly greater than unity.

SUMMARY

1. A summary of the normal hematologic standards of infants is presented.
2. The anemias of childhood may be

classified according to the mechanism of production.

3. The iron deficiency anemias of children are common. They are caused by deficient ante-natal storage, insufficient post-natal supply or by interference with post-natal iron metabolism.

4. The iron deficiency anemias are important because they frequently predispose to infection.

5. Prophylactic administration of iron to expectant mothers during the third trimester of pregnancy reduces the incidence of iron deficiency anemias of infancy.

6. Therapeutic administration of iron from the third to the ninth month prevents the development of the iron deficiency anemias of infancy.

REPORT OF A CASE OF TUBERCULOUS MENINGITIS

H. G. WELLS, M. D.

Georgetown.

Harold Wallace, Age 14 years, Male, White, address, Newtown, Kentucky.

Family History: Father died three months ago from pulmonary tuberculosis, patient slept with his father during illness. Mother had amputation of leg fifteen years ago for tuberculous infection. History of tuberculosis in both father's and mother's family. Two sisters and one brother all living and well.

Past History: Common childhood disease, no serious illness, operations or accidents. He has been well up to the time of present illness attending school.

Present Illness: Onset three days ago (10-7-39) with severe headache, stiffness of back and neck, unable to void, constipation, loss of appetite, restlessness, became gradually worse with drawing of head backward, stillness and drawing upward of feet and legs. Eyes rolling upward and outward.

Chief Complaint: Severe headache, vomiting, without nausea, stiffness of back and neck, severe pain in neck and back when head is moved, eyes rolling upward and outward, unable to void, and constipation.

Physical Examination: Weight 110 pounds, blood pressure 118-80, temperature 99, pulse 60, respiration 20. Well developed and well nourished white male young adult patient, acutely ill. Lying in bed in a stuporous condition, rigidity of neck and back, moderate opisthotonus, tache cere-

brale positive over abdomen, Kernig's sign positive, eyes partially closed with frequent rolling upward and outward, pupils dilated, partial paralysis of lower extremities.

Laboratory Findings: 10-10-39, Urinalysis, yellow, clear, acid 1014, albumen-faint trace, sugar negative, pus cells 4-5 to high power fields; occasional red blood cells. Blood count, Hemoglobin 80 per cent, Red cells 4,650,000. White cells 9,200; Lymphs 21 per cent, Polys. 78 per cent, Trans. 1 per cent. Spinal puncture, fluid, hazy pellicle formation in 36 hours, direct smear taken from pellicle, positive for acid fast bacilli (tubercle bacilli).

Diagnosis: Tuberculous Meningitis.

Treatment: 10-11-39. Sulfanilamide grains 20 x 5 doses, then sulfanilamide for two days. 10-12-39. Sulfapyridine grams two every four hours, x 5 doses then grams one and a half every four hours x 4 doses with sodium bicarbonate.

Progress: 10-10-39. Temperature 99, pulse 48, respiration 22. Very restless, unable to void, marked rigidity of neck and back, constantly rubbing forehead and face. 10-11-39. Temperature 99, pulse 60, respiration 22; restless, still rigidity of neck and back, fluid stool, retention, still being catheterized, taken only fluids by mouth. 10-12-39. Partial paralysis below umbilicus, constipation, urinary retention. 10-15-39. Temperature 98, pulse 70, respiration 20. Still unable to void, taking soft foods by mouth, slight constipation, patient quiet and sleeping, taking codeine, gr. one-half for pain and discomfort. Condition much improved today, 10-20-39. Temperature 98.6; pulse, 70, respiration 20. Unable to void. Bowels move with cascara laxative. Taking fruit juices by mouth, twitching of lower extremities. 10-28-39, temperature 101, Pulse 90, Sulfapyridine discontinued. Continued giving sodium bicarbonate and forced fluids by mouth; hematuria cleared up; still unable to void. 10-30-39, temperature 98.6; pulse 70, respiration 20. Blood pressure 120.70. More movement of lower extremities; still unable to void. Taking soft diet; bowels move regular. Condition improved. 11-8-39. Temperature 98.6; pulse 76, Respiration 20; blood pressure 120.70. Voiding, bowels move regular, appetite good; paralysis clearing up, condition markedly improved. Patient up in chair. 11-15-39. Patient up in chair, walking with crutches. Condition much improved. 1-2-40. Returned to school, walking without crutches.

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EDITORIALS

OUR DUTY IN THE PREVENTION
AND CURE OF CANCER

There is a time in every case of cancer when the disease is curable. The exact time when the affection becomes incurable is not known. Therefore, it behooves every one dealing with such lesions to be actively alert in every instance when they are at all likely to be present or to develop. Ulcers and superficial new growths are easily recognized and one quickly realizes that it is best to consult a physician at once to determine the proper treatment. There is no excuse for neglect of such lesions.

The detection of internal growths which are malignant or likely to become so, is more directly the duty of the physician. The reason for this lies in the fact that, during the early stages, these growths give so little evidence of their gravity that, in many instances, the physician, himself well versed in the behavior of tumors of the kidney, liver, gall-bladder, pancreas, stomach and intestines, has not recognized such condition in his own system until far beyond the time for possible cure. Therefore, no blame rests upon the patient, not versed in medicine or familiar with such symptoms, for failure to suspect the onset of a dangerous lesion. Pain calls the patient's attention to internal trouble and indicates an acute process. It is valuable because it forces one to apply for aid. It is a late symptom in the most malignant growths. The patient should be advised not to wait for this symptom when he has a persistent discomfort in any portion of the abdomen, in the chest or in either loin, or any disturbance of bladder function, but to see his physician at once. Our duty in such instances and also in those which present symptoms referable to the right upper quadrant, usually classed as indigestion, colic or biliousness, is to give them very careful consideration.

No longer is one justified in the conclusion that a brief inquiry into the history, a superficial examination, with instruction concerning diet, habits and mode of life, plus a simple digestive agent, are all that is necessary. The patient had just as well follow some prescription broadcast over the radio, which every one knows is likely to be harmful. If pressed for time, make an engagement when nothing will interfere with a complete examination. Every patient deserves all the attention he needs from his physician and, in the larger num-

ber of cases, he receives it.

Certainly, persons with symptoms referable to the upper abdomen, with vague aches, nausea, gaseous eructations and other unusual feelings, should have further observation, during which time a complete anamnesis is obtained. If he has had any discomfort, burning or belching after eating with any degree of frequency, not immediately relieved, further investigation should be advised.

The physician gets all the information possible from his physical examination, study of gastric motility, chemical analysis of the gastric contents and the presence of blood in any portion of the gastrointestinal tract. From these findings and from the study of adjacent organs he decides, if possible, which organ is most responsible for the patient's discomfort. More than one of these organs, only slightly affected at this time, may be responsible and a proper course of treatment may give complete relief. Such patient should report to the practitioner at sufficiently short intervals, so that no unfavorable changes may occur without recognition. No first class physician desires to see his patient with too great frequency and will have him report only when necessary. The effect of treatment as observed from time to time aids materially in proper diagnosis and prognosis.

Prolonged treatment without complete or considerable relief, should cause the physician to consider whether a more complete study is not advisable. In fact, the patient himself when he does not improve, will settle this question, either by a visit to his doctor or to another practitioner or to a specialist. In the great majority of instances, a diagnosis can be made by this time.

No one can better judge when the means of precision should be employed than the attending physician. In justice to himself and to his patient, the facts should be stated fairly to the patient and to his family. Unless the diagnosis is evident, so that a prognosis can be given safely without the additional expense of instruments of precision, such mechanical means should be employed. When in doubt, either as to the diagnosis or prognosis, no delay is permissible, regardless of expense. There is no excuse for either the physician or the surgeon or, for that matter, for the specialist in any department to delay beyond reason calling for a needed consultation when it is clearly desirable. The smart physician ob-

tains a consultation early and before the family requests it. Never, in all my experience, have I failed, when a patient needed a consultant, medical or surgical, or any of the specialties, to obtain an immediate response to the call for aid. This has been true whether the patient was able to pay for the service or not. The entire medical profession looks with disfavor upon the physician who fails to respond to the call for help for the sick and injured or the woman in labor because, perchance, the cash does not await him. A physician of this type fails to realize the function of medicine and fails also to reap the greatest thrill of his calling.

These remarks apply to hidden cancers more especially, but it would not be fair to omit the malignant conditions occurring in women, who are more prone to certain forms of cancer than men. Many of these lesions occur in the pelvis and are not always known to the patient herself, but they early give evidence that all is not right. When any symptoms occur which she does not understand, her physician should see her. There is a tendency, because of the fear of cancer, to conceal these symptoms rather than at once to seek aid. This is due, in part, to the fact that in the past the teaching concerning the early symptoms of cancer has not been correct. It is now recognized that the onset of the disease occurs long before symptoms evident to the lay public are noted. We have no desire to alarm people needlessly, or to cause them to worry over innocent conditions, or give the impression that cancerous lesions can not be cured. However, our duty is fully to keep them informed of the importance of advice concerning anything unusual about any of the body functions which they do not fully understand.

Pain is not an early sign of cancer, but usually comes on after a new growth begins to press upon adjacent nerve structures. All tumors of the breast are potentially dangerous. All unusual discharges from the pelvis or bowels should have immediate attention. Changes in appetite, discomfort after eating, fulness, belching, moderate but continuous loss of weight, weakness, sense of being tired and discoloration of the skin are abnormal. They are signs of warning. The people are becoming cancer conscious, largely because of the American Society for the Control of Cancer, which is doing a great work—a work to which almost every American physician

is contributing without any great publicity. The chief result of all the study of cancer—its increasing prevalence and still high mortality—is the possibility of the discovery of the cause. Until this discovery is made, we must content ourselves with efforts to get patients under treatment while they are yet curable, not overlooking the fact that the younger individual, the more rapid the progress of the cancer. The treatment of the case should be left to the doctor in charge. Where symptoms are strongly indicative of beginning or well developed malignancy, the treatment, whatever it may be, must be radical and thorough. Different types of cancer require different treatment and different methods for relief have been well presented by many writers. As time goes on, medical thought will become more crystallized and accurate. All are agreed, however, that delay in recognition and treatment is often fatal.

J. GARLAND SHERRILL

GRAVES COUNTY SOCIETY HONORS YOUNG VETERAN

Members of the profession all over the State will be gratified to know that Dr. H. H. Hunt, Mayfield, has been elected Secretary-Treasurer of the Graves County Medical Society for life. Dr. Hunt has been its Secretary-Treasurer for thirty-six years, and is one of the most effective officers of the Association. He has been a member of the House of Delegates for the same period of time.

County secretaries are the key men of the medical organization and Graves County is to be congratulated on having secured and retained the services of a man who has brought it and the medical profession great honor.

At the same meeting Dr. W. S. Hargrove was elected President and Drs. W. E. Merritt and D. H. Ray, Vice-Presidents.

VENEREAL DISEASE INFORMATION

The United States Public Health Service issues once a month a very interesting digest of Venereal Disease for use in its co-operative work with the State and local Health Departments and physicians in private practice. This can be purchased for fifty cents a year, or one dollar for two years, and is a worthwhile volume for every general practitioner to have.

Only when physicians realize that six

hundred thousand advanced cases go to the physician for the first time every year, and similar estimates for gonorrhea vary from a million up, it is very necessary to raise the "index of suspicion" by becoming thoroughly familiar with the case. There is valuable scientific knowledge in this pamphlet. For subscription to this brochure, write to Dr. R. A. Vonderlehr, Assistant Surgeon General, Division of Venereal Diseases, Washington, D. C.

FAMINE DIET

The League of Nations Committee on nutrition have for a number of years been experimenting on a famine diet which will give the people of the warring countries minimum, adequate food, that will maintain the health of the body, and at the same time avoid the development of nutritional disorders.

When so many of our own people are without a maintenance diet, the findings of the League should be studied and the underprivileged should be instructed and encouraged to use those articles of diet which are within their purchasing power, and yet contain the necessary elements sufficient to maintain health.

In 1916 when the U-boats threatened to starve out England, scientists tried out various crops to see which would produce the maximum of food per acre. Jerusalem artichoke, the tuberous-rooted relative of the sunflower, won. This plant was widely used in the eighteenth century in Europe before the potato was popularized. It is easy to grow and its sugar content indeed makes it a very valuable food, and is well suited to all types of Kentucky soil, and the cultivation of this plant in the gardens should be encouraged.

The lowly potato is also exalted to an equally high position. Sir John Boyd Orr, a leader in the League of Nations Committee on nutrition, makes the following comment on this tuber:

"After milk and vegetables, the most important food produced is the potato. It is a protective, alkaline food, the main source of minerals and vitamins. Its use has been neglected in recent years. Some women are afraid to eat potatoes because they think they are fattening," however, Sir John has proven that one pound of bread and butter is more fattening than four pounds of potatoes. If your patients are too fat, leave off the bread and butter and eat potatoes and leafy vegetables.

Families in the lower income group should be encouraged to eat the potato, including the skin and the water in which

the potato is cooked, because of their special health value, and their cheapness.

It should be remembered that the potato, after the artichoke, yields the highest of food per acre. An acre of potatoes gives twice as much food as an acre of wheat.

OHIO STATE MEDICAL ASSOCIATION

We have the privilege of extending the invitation from Dr. Parke G. Smith, President of the Ohio State Medical Association to all members of the medical profession of Kentucky to attend the 94th Annual Meeting of that Association to be held on Tuesday, Wednesday and Thursday, May 14, 15 and 16, 1940, at the Netherland Plaza Hotel, Cincinnati.

Mr. Charles S. Nelson, Executive Secretary, Columbus, Ohio, has informed us that he will be glad to register as a guest any member of the Kentucky State Medical Association who attends the meeting. I know this meeting will be valuable and of great interest to those able to attend it.

THE LEXINGTON MEETING

The Annual Meeting of the Kentucky State Medical Association in Lexington the third week in September, offers an unusual opportunity to the physicians of the State to not only enjoy a delightful vacation in the blue-grass region, but at the same time obtain a profitable postgraduate course, because this promises to be one of the best scientific meetings we have had for many years.

Dr. Frank Stites, Chairman of the Program Committee, has been actively at work since January, and Dr. C. A. Vance, our beloved Councilor, who is General Chairman on Arrangements, reports that his Society is busy at work not only on the general arrangements, but on the entertainment.

The headquarters will be at the Phoenix Hotel, and it is not too early to begin now to make your reservations. Write to Dr. C. C. Garr, in care of the Phoenix Hotel, Lexington, Kentucky, and get your choice of rooms.

The debris of broken systems and exploded dogmas form a great mound, a Monte Testaccio of the shards and remnants of old vessels which once held human beliefs. If you take the trouble to climb to the top of it, you will widen your horizon and in these days of specialized knowledge, your horizon is not likely to be too wide.

COUNTY SOCIETY REPORTS

Calloway: The call dinner meeting of the Calloway County Medical Society was held at the National Hotel on April 18, at 7:00 P. M. The society had as its guests the Calloway County Auxiliary to the Calloway County Medical Society. The dinner table was decorated in honor of Doctors Day by the Calloway County Auxiliary.

Speakers: E. W. Garrett and J. A. Outland.

The following were present: Dr. and Mrs. C. H. Jones, Dr. and Mrs. E. W. Garrett, Dr. and Mrs. L. D. Hale, Dr. A. D. Butterworth, Dr. and Mrs. Hugh L. Houston, Dr. and Mrs. J. A. Outland, Dr. and Mrs. Coleman McDevitt, Dr. Catherine Fisher, Dr. Edison Fisher, Dr. Will Mason, Dr. Ora Mason, Mrs. Rob Mason, Mrs. Russell.

The members absent were as follows: P. A. Hart, J. V. Starks, E. D. Miller, Rob Mason, Hal Houston.

The program consisted of two papers:

Incision and Drainage, by E. W. Garrett.

Communicable Diseases, by J. A. Outland.

These papers were enjoyed by the entire society.

The date of the next meeting of the society will be on July 11, 1940.

The meeting was adjourned by Dr. A. D. Butterworth.

HUGH L. HOUSTON, Secretary.

McCracken: The Committee on Resolutions on the death of Dr. E. B. Willingham report as follows:

During the past month it has pleased our Heavenly Father to remove from our medical circle and from his sphere of action our beloved friend and capable co-worker, Dr. Edward Burnett Willingham.

His active interest in all affairs of local, state and national medical progress will be sorely missed. Dr. Willingham was never happier than when engrossed with medical problems and his accomplishments and acumen shall stand as a glorious and living monument. His interest in rich and poor alike, his constant efforts to alleviate human suffering, his kindly sympathetic understanding of human ills and weaknesses made of him "a true physician."

Be it resolved: That this Society has lost one of its most loyal members, his family a devoted husband and father and the community one of its greatest benefactors.

Be it resolved further: That our deepest sympathy be extended his bereaved family, and a copy of these resolutions be sent to the family, spread upon the minutes of the McCracken County Medical Society and sent to the Ken-

tucky State Medical Society and the Paducah Sun-Democrat.

Respectfully submitted,
E. W. Jackson, Chairman
L. P. Molloy,
Leon Higdon.

Rockcastle: The Rockcastle County Medical Society met on December 8, 1939, and held its regular election of officers. The following officers were elected: Walker Owens, President; T. A. Griffith, Vice-President; Lee Chesnut, Secretary and Treasurer.

The delegates to the Kentucky State Medical meeting in Lexington were elected in December, 1938.

The following scientific programs have been held:

December 8, 1939 — Difficult Obstetrical Cases, N. M. Garrett, Brodhead.

January 5, 1940 — Lung Abscess, Report of Case, T. A. Griffith, Mt. Vernon.

February 9, 1940—Modern Classification of Heart Disease, W. E. McWilliams, Brodhead.

March 8, 1940—At this meeting, there was held an interesting round-table discussion by all members of the society. Such cases as placenta previa, prolapsed cord, puerperal sepsis, and post-partum hemorrhage were presented for discussion. Dr. N. M. Garrett, Brodhead, presented a brief paper on allergy since he himself is a sufferer of various allergic manifestations. A case of Kerato-conus presented by T. A. Griffith.

Our society meets the first Friday in each month at 6 p. m. at the Dixie Boone Hotel. Any physicians in towns near Mt. Vernon and located in other counties are cordially invited to attend.

LEE CHESNUT, Secretary.

Tri-County: The Tri-County Medical Society composed of Carroll, Gallatin and Trimble, met in regular session at Carrollton, on Friday evening, March 15, 1940. Practically all our members were present to hear a most interesting illustrated lecture by Dr. L. E. Smith, Secretary of the Kentucky Tuberculosis Association, of his "Adventures and Experiences as a Medical Missionary in Africa."

After the round table discussion, the meeting was adjourned.

H. CARL BOYLEN, Secretary.

Jefferson: The April meetings of the Jefferson County Medical Society were held at the City Hospital with the following programs:

April 1

Business Session, at 7:45 P. M. Scientific Program, 8:15 P. M.

Newer Knowledge of Vitamins, by Dr. A. W. Homberger, Department of Chemistry, University of Louisville.

Sinus Disease In Relation to Systemic Disease, Lantern Slides. Joseph D. Heitger, M. D.

Dupuytren's Contracture, Lantern Slides. J. Duffy Hancock, M.D.

April 15

Business Session, 7:45 P. M. Scientific Program, 8:15 P. M.

Newer Knowledge of Vitamins, By Dr. A. W. Homberger, Department of Chemistry, University of Louisville.

Panel Discussion of Tuberculosis in Children. Leader—Philip F. Barbour, M. D.

Pathology—Benjamin L. Brock, M. D.

Clinical Symptoms—W. W. Nicholson, M. D.

Extra Pulmonary Tuberculosis—Lee Palmer, M. D.

Treatment—Oscar O. Miller, M. D.

W. B. TROUTMAN, Secretary

NEWS ITEMS

The Editor is just in receipt of a letter from Dr. H. Close Hesseltine, Department of Obstetrics and Gynecology, University of Chicago, Illinois, that the Department of Obstetrics and Gynecology, and the Chicago Lying-In Hospital are offering five to six weeks postgraduate courses in obstetrics for practitioners, during the next several months. There will be three periods: One from April 29 to June 8; the second, June 17 to July 20, and the third July 22 to August 24. Any physician registering will be expected to deposit \$25.00, \$10.00 of which will be returned at the completion of the course. The only additional expenses, other than personal incidentals, will be for board and room.

Interested physicians may address the Postgraduate Course, Department of Obstetrics and Gynecology, 5848 Drexel Avenue, Chicago, Ill.

Irving Rosenbaum, M. D., announces the removal of his office to Suite 423 Heyburn Building. Practice limited to pediatrics. Office hours, 2 to 4 p. m. Phone Wabash, 1351.

The award known as "The Foundation Prize" of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons will be \$150.00, and interns, residents, or graduate students in this field and physicians actively engaged in this type of work are eligible for this prize.

Further information can be secured by writing to Dr. James K. Bloss, Secretary, 416 Eleventh Street, Huntington, West Virginia.

BOOK REVIEWS

DIRECTORY OF MEDICAL SPECIALISTS—Published by Columbia University Press, New York, 1940, Cloth, \$5.00 net.

This valuable Directory of Medical Specialists contains the names of approximately 14,400 Diplomates certified by the twelve special American Boards and one affiliate Board. This Directory contains both a geographic and biographic listing of Diplomates, with a complete alphabetical list of all specialists. The Directory is invaluable to doctors (specialists and general practitioners), hospitals, social agencies, libraries, medical societies and commercial interests. Hospital officials and medical societies will be interested in having this authoritative listing available. The book's practical uses are too many to enumerate; its contents are well classified making it comparatively easy to find any references the reader may desire.

VARICOSE VEINS. By Alton Oschner, B.A., M.D., D.Sc. (Hon.), F.A.C.S., William Henderson, Professor of Surgery and Director of the Department of Surgery, School of Medicine, Tulane University, New Orleans, and Howard Mahorner, B.A., M.D., M.S. (Surgery), F.A.C.S., Assistant Professor of Surgery, School of Medicine, Tulane University, New Orleans. With 50 text illustrations. The C. V. Mosby Company, St. Louis, Publishers.

Only in recent times has this subject received its deserved attention in surgery. This book will fulfill a longfelt want. Injection methods as well as the latest surgical procedures are given in detail with ample illustrations to illustrate every phase of the technic.

DIAGNOSTIC SIGNS, REFLEXES AND SYNDROMES. Standardized by Wm. Egbert Robertson, M.D., F.A.C.P., Visiting Physician, Medical Division, Philadelphia General Hospital, St. Luke's and Children's Hospital, and Harold F. Robertson, B.S., M.D., F.A.C.P., Instructor in Medicine, University of Pennsylvania, Assistant Visiting Physician, Medical Division, Philadelphia and Methodists Hospital. F. A. Davis Company, Publishers, Philadelphia. Price, \$3.50.

This volume is entirely a new type of a book. Signs and reflexes prove of great value in making a diagnosis and gradually the profession is placing more emphasis on the importance of their utilization, and this is a ready reference work in which all the numerous signs, reflexes and syndromes might be referred to for their indications.

It is designed to serve the practicing physician as well as the medical student.

PRACTICAL OBSTETRICS, by P. Brooks Bland, M.D., Emeritus; Professor of Obstetrics Jefferson Medical College, Consulting Obstetrician, Jefferson Medical College Hospital, Philadelphia and Thaddeus L. Montgomery, M.D., Clinical Professor of Obstetrics, Jefferson Medical College, Philadelphia. Third revised edition. Illustrated with 502 engravings, including 27 colored plates. F. A. Davis Company, Publishers, Philadelphia.

Velpeau said obstetrics is the ensemble of knowledge relative to the reproduction of the human species and this valuable volume bears out this quotation. This third edition has entailed considerable revision and rewriting, particularly in those chapters which have to do with toxemias of pregnancy, endocrine physiology, obstetrical anesthesia, and the treatment of the newborn. There have been also added numerous new illustrations and several older ones replaced. Regardless of these many changes the author has preserved the salient features which has made the book particularly well accepted, that is, the brevity and directions of the text.

SYNOPSIS OF PEDIATRICS, by John Zahorsky, A.B., M.D., F.A.C.P., Professor of Pediatrics and Director of Department of Pediatrics, St. Louis University School of Medicine, Pediatrician-in-Chief to St. Mary's Group of Hospitals, Fellow of the American Academy of Pediatrics, assisted by J. S. Zahorsky, B.S., M.D., Instructor in Pediatrics, St. Louis University School of Medicine and Assistant Pediatrician to St. Mary's Group Hospitals. Third edition. C. V. Mosby Company, Publishers, St. Louis. Price, \$4.00.

This newly revised book contains only the meaty results of trial and error encountered during the author's 35 years of actual service. Each step in the treatment and diagnosis is carefully explained and demonstrated to simplify assimilation of the work. In this new edition the sections on diagnosis and therapeutics have been brought up to date.

OPERATIVE ORTHOPEDICS. By Willis C. Campbell, M.D., Memphis, Tenn. 1,154 pages, illustrated, 4 colored plates. The C. V. Mosby Company, Publishers, St. Louis. Price, \$12.50.

This book fulfills a need for a comprehensive, concise work for the orthopedist, student, general practitioner, and general surgeons who often are the first to see and advise the patient. The illustrations are detailed and excellent. In all this volume is very complete, a worthy addition to the physicians' and surgeons' library.

KENTUCKY MEDICAL JOURNAL

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JUNE, 1940

PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

PITUITARY ADENOMA AND X-RAY THERAPY OF THE DISEASE

HOY NEWMAN, M. D.

Bowling Green,

Propriety would seem to demand that we pay our homage first of all to the little subject which we are about to discuss, the little subject which weighs only about ten grains, but which by its capriciousness can make children into dwarfs or into giants; may change our glamour girls into waddling masses of obesity; outrage our sensibilities by depositing whiskers and mustaches on the fair skins of our lovely debutantes; change a normal individual into a veritable eunuch, or shove him into the role of the famous Russian monk, Rasputin, whose feats of sexual powers are amazing to the average man. The significance of this little subject's powers has only become apparent since the speaker graduated from Medical School. To this "Leader of the endocrine orchestra" we pay our respects and attempt to discuss one means of influencing its conduct.

For the purposes of this paper we are interested only in tumors of the pituitary gland, the so-called adenomas which are divided into the following types according to their cytological characteristics:

Acidophile, Chromophile, Basophile, Chromophobe.

The cellular elements of the hypophysis are divided on the basis of their staining reactions into two principal types: those having a non-granular cytoplasm, and those having a cytoplasm which is granular.

Cells of the first type are known as neutrophile or chromophobe, and those of the latter, the granular type, as chromophile, of which there are two kinds; the acidophile, which takes acid stains and the basophile which takes the basic stains. Each of these three cellular types is capable of producing its own peculiar adenomatous formation.

It is fairly well established that the acidophile cells secrete the growth hormone and its related products. The chromophobes are forerunners of both and can develop into either. The eosinophile cells develop in size and number until puberty when they remain stationary for thirty to forty years and then decline in number.

The functions of the pituitary depend

upon the hormone secreted by its anterior lobe, and the pars intermedia.

One of the important points in diagnosis of pituitary tumors is the X-ray interpretation of the sella turcica. As will be pointed out again the lack of deformity does not necessarily mean absence of pituitary tumor, the presence of deformity does mean a great deal in the positive diagnosis. Because of the importance of the sella, let us glance at some of the significant features of the X-ray findings, both anatomically and pathologically.

The average size of the sella turcica is 8 mm in depth and 10 mm in anteroposterior diameter. 10 to 12 is top normal and those above are distinctly abnormal. Diagnosis, however, does not rest solely on the size, but on the deformities as well.

The cardinal changes occurring in deformities of the sella turcica are:

- (1) Atrophy of the dorsum sella.
- (2) Erosion of the floor of the pituitary fossa.
- (3) Increase in the size of the fossa.

ACROMEGALY

Hyperplasia of the acidophilic cells is characteristic in giantism and acromegaly. Marie was the first to describe this disease in 1886. From Cushing comes the most authoritative studies of this disease, as well as of the pituitary in general, and to Gramegna in 1909 belongs the credit of treating this condition with X-ray and recording his observations. From the following symptoms it will be noted that the disease is protean in manifestation, if rare in occurrence. It is by no means incompatible with great physical and intellectual skill. You are familiar with the great Italian boxer, Prima Carnera.

SYMPTOMS	PER CENT
1. Enlargement of acral parts.....	100
2. Enlargement of sella turcica....	93
3. Disturbance of menstrual cycle..	87
4. Headaches	87
5. Complete Amenorrhea	73
6. Increased B. M. R.....	70
7. Visual disturbances	62
8. Excessive perspiration	60
9. Hypertrichosis	53
10. Cutaneous pigmentation	46
11. Drowsiness and lethargy.....	42
12. Gain in weight.....	39
13. Diminished libido	38
14. Asthenia	33
15. Low B. P. (less than 120).....	30
16. Parasthesia	30
17. Polyphagia	28
18. Polydypsia	25

19. Glycosuria	25
20. Constipation	20
21. Vomiting	16
22. Rhinorrhea	15
23. Photophobia	12
24. Failing memory	7
25. Decrease of body hair.....	7
26. Persistent lactation	4
27. Choked discs.....	3

CHROMOPHOBE ADENOMAS

These tumors may occur both before and after puberty. They lead, as a rule, to Frolich's Syndrome, namely; adiposity associated with dystrophy of the genitalia. In children the genitals never develop to adult proportion, while in adults there is regression in size, and in men a tendency to the feminine type of pubic hair and of bodily configuration. Amenorrhea in adult women is an early sign and in girls the menses do not develop. The following shows the symptoms which characterize the disease.

SYMPTOMS: (1) Headaches, (2) Fatigue, (3) Gain in weight, (4) Visual disturbances, (5) Sexual impotence, (6) Sensitiveness to colds, (7) Persistent lactation, (8) Amenorrhea, (9) Low B. M. R.—30-40, (10) Polydipsia, (11) Polyuria.

These tumors tend to become large and cystic, producing "Neighborhood Signs" because of pressure, namely; great enlargement of the sella turcica, optic atrophy and headaches and visual disturbances.

BASOPHILE TUMORS

The third type, and in many respect the most interesting and fascinating, is that of the basophilic adenoma or Cushing's Syndrome described by him in 1932. Bland and Goldstein collected 42 cases of basophilism from the literature and reported this in the November, 1937, S. G. & M.

SYMPTOMS: (1) Adiposity, (2) Acrocyanosis, (3) Cutaneous striations, (4) Sexual changes, impotence, etc., (5) Hirsutes, (6) Hypertension, (7) Osteoporosis, (8) Fatiguability, (9) Headaches, frontal or temporal, (10) Peculiar body odor, (11) Haze of optic discs, (12) Glycosuria.

In describing this disease Dr. Cushing says: "This Syndrome in course of time has been found to be associated with a destructive lesion or with a tumefaction primarily involving one or another of the organs (endocrine) in question. These tumefactions have proved in most cases to be of an adenomatous character and it was finally recognized that adenomas of this kind were functionally active structures that produc-

ed hypersecretory effects. It then gradually came to be realized that the tumor need not necessarily be bulky but, quite to the contrary, striking clinical effects might be produced by minute symptomatically predictable adenomas. So it is the degree of secretory activity of an adenoma which may be out of all proportions to its dimensions that evokes the recognizable symptoms complex in all hypersecretory states."

Now we approach the "Text" of this paper, *The Role of X-ray Therapy in the Control of Pituitary Tumors*. A review of the literature on radiation therapy reveals quite a divergence in opinion as to the effects produced and the amount of radiation required to treat these tumors satisfactorily. This does not make for clarity, but does stimulate one's interest. There seems to be no question in the minds of any one that the acidophile tumors with acromegalic symptoms, producing headaches, visual disturbances, etc., should be treated with X-ray; and likewise opinion seems to be unanimous in treating the basophile tumors with X-ray. The chromophile tumors are declared by many to be particularly sensitive to radiation, but the chromophobe tumors with Frolich's Syndrome are least likely to respond. Cystic tumors, usually of the chromophobe variety, do not do well with radiation. Towne estimates that 80% of pituitary adenomas are solid and 20% cystic. Therefore, it seems that about one-fifth of the group are not likely to be benefited by radiation.

Beclere stated that "When there is the least suspicion of a tumor in the hypophyseal region, it is necessary to resort to Roentgen-ray therapy, which must always be tried and that, only in case of failure therefrom, is one justified in resorting to surgery."

All patients should have examination of eye grounds and perimetric examinations before starting radiation. It is well to have numerous perimetric checkups during the course of treatment and ready consultation from the Ophthalmologist. It seems to be a readily accepted fact that heavy radiation to cystic tumors may produce hemorrhage or swelling with marked aggravation of symptoms which sometimes make it necessary to resort to decompression to relieve the pressure. Many radiologists feel that X-ray therapy to these tumors offers an excellent method of deciding on the necessity for surgical intervention. If the patient

is not in imminent danger of losing his eyesight, radiation is the method of choice. Meredith of the Lahey Clinic says, "It seems wise to limit Roentgen ray therapy to cases with little or no visual impairment."

TECHNIQUE

There is a wide variation in technique, some operators believing it wise to start off with small doses in order to determine the reaction of the tumor to the rays and, perhaps, avoid unpleasant complications. Cutler advises using four ports about the size of a fifty cent piece and treating in rotation, using 300 r to each port. The factors are 200 kv. 2 mm Cu and 1 mm al 50 Cu distance. Give 900 r to each port; repeat in two months if visual fields and symptoms warrant.

I have treated five cases and have chosen the lesser dosage. My choice has been 200 r to each of these portals given every second to third day up to 2500 r. This may be repeated in two to three months if visual fields and symptoms indicate the need of it. These cases had little or no visual disturbances and the distressing symptoms associated with the disorder have been ameliorated. It is my opinion we would do well to stick to conservative dosage in treating these tumors.

Phaler's principles of therapy are as follows:

(1) Radiation should be delivered into the diseased area with the least possible damage to overlying tissues. Recommend 200 kv. 0.5 to 2 mm Cu filter at 40 to 50 Cu.

(2) Keep portals small as possible. Treat through each temporal region and frontal region.

(3) Give 25 to 50 percent erythema dose (750 r in air) through each temporal and frontal region weekly and repeat until 200 per cent is given.

DISCUSSION

R. Glen Spurling, Louisville: It is a pleasure to see some one other than the neurosurgeon interested in brain tumors. It indicates a trend, I believe, that will in the future bring these cases to earlier diagnosis and, consequently, earlier treatment.

The review of the pathology of pituitary disease is brief but comprehensive. The only addition I would make is that the common, unmistakable symptom of advanced tumors of the pituitary gland is, in the female, amenorrhea and in the male sexual impotence.

I think Dr. Newman has expressed the general-

ly accepted attitude regarding treatment. The neurosurgeons at least feel that in chromophobe adenomas, where the vision is seriously impaired, operation should be performed promptly. Earlier cases of chromophobe adenomas should first have X-ray therapy. If this fails to bring relief of symptoms then operation at a later date is advised. We feel that all chromophile adenomas should first receive X-ray therapy because most of them will be favorably affected by irradiation. In the basophile adenoma roentgen therapy is the only method that has ever been used so far as I know and that has in many cases had dramatic effects.

Like many other good things in medicine X-ray treatment of pituitary adenomas is not without its dangers. It is not uncommon for hemorrhage to occur in the tumor during or shortly after the completion of a course of irradiation. In my series of verified pituitary tumors there have been three instances of hemorrhages occurring during treatment, two in chromophile adenomas and one in a chromophobe adenoma. The first two cases were operated on promptly with evacuation of the hemorrhage and removal of the tumor. Both patients survived without impaired vision. The third one, an ambulatory patient, returned to his home in the country, suddenly became blind with terrific headache and died within a few hours. These complications, therefore, would seem to justify the statement that all patients who receive X-ray therapy should be watched very carefully and should be in a position to have prompt surgical intervention should this complication occur.

Hoy Newman, (in closing): I agree with Dr. Spurling on the question of frequent check-ups on the eye fields, and from what he says I think we had better stick pretty close to the neurosurgeon, too. I hope that you saw my slides on basophilism well enough to get the general idea of some of the outstanding symptoms of the disease.

Fat Embolism.—Kolmett reports three cases of fat embolism, two of which developed in connection with fractures and the third as a result of urethrographic examination, a fatty substance having been used as a contrast medium. The roentgenograms were similar in all three cases, showing diffuse cloudiness and spotty areas of density over both lungs, which remained a long time after the appearance of the fat emboli. The author states that stimulants, blood letting and the administration of fluid had no effect. In two cases, however, treatment with oxygen proved to be highly beneficial and in one of them it saved the patient's life.

RESISTANT, RECURRENT AND
METASTATIC CARCINOMA

D. Y. KEITH, M. D.

Louisville

The class of cases in our title is a group one hears so little of in the literature, though many salvaged cases of this character are to be found in the files of any radiotherapist of long and wide experience. I believe we can best interest you in giving, first, detailed histories of each of these and then discuss the therapy, management and the possibilities of a greater salvage if closer attention is paid to them earlier in the course of their beginning miserable existence.

CASE I. Mrs. M. W. K.—Age 47. Weight 112 lbs.

Clinical Diagnosis: Advanced scirrhous carcinoma of the breast, with ulceration and axillary metastasis.

The left breast was partially destroyed, being about one-half the size of the normal right breast. There was an irregular deep ulceration, extending from the nipple laterally for several centimeters. The breast was firmly fixed to the chest wall with fixation of the pectoralis major muscle.

In the left axilla there was a metastatic node the size of a hen's egg; to it was attached small nodes and surrounding these were many "shotty" nodules.

From March 31, 1938, to May 6, 1938, she received 4,937.5 r units 400 K. V. X-ray to the left breast and axilla through an anterior portal 20 x 20 cm. in size. From July 5 to 21, she received 2,015 r through the same anterior portal.

On May 13, 200 mg. hrs. of radium was applied around the left nipple. On July 7, 500 mg. hrs. of radium was given to the mesial side of the ulcer. On August 22, 157.5 mg. hrs. radium was applied to the metastatic nodules in the axilla.

On October 6, 1938, under general anesthesia, the residue of the tumor, including the ulcer, was removed by Dr. E. Lee Heflin. It was impossible to close the defect on account of fibrosis of tissue around the ulcer and fixation to the chest wall.

During the past year the patient's menstruation had been abnormal, in that profuse flow was present at menstruation and the periods would frequently last 10 to 12 days. In May, 1938, the bleeding became continuous and in June the regular men-

struation was profuse, shading off to a scant continuous flow. The July menstruation was again profuse, followed by a continuous scant flow. August and September menstruations were of a similar character.

Pelvic examination was negative for pathology.

On October 6, 1938, at the time the ulcer and residue of the breast tumor were removed, a dilatation and curettage was done, followed by application of 100 mg. of radium element for 20 hours in the uterine canal. Results were prompt; no bleeding and no further menstruations occurred. The gain in weight was rapid.

Convalescence was very slow, requiring six months for epithelization of the defect in the chest wall. Her gain in weight was steady. She looked well and was apparently free of disease.

Microscopical Diagnosis, by Dr. J. D. Allen, of the residue of the tumor, was "Carcinoma of the breast with marked cicatrization, many areas appearing like keloid (result of radiation)."

Review of the slides on March 15, 1940, by Dr. J. D. Allen, who states "Difficult to grade or classify, cells distorted as a result of fibrosis and poor nutrition. Apparently Scirrhous Carcinoma."

One year afterward the patient was apparently free of disease, had gained 26 pounds; she looked like a different individual. The scar was irregular, varying in color from a deep pink to white. It was fixed to the chest wall. Deep scarring was present in the axilla, though no nodes were palpable.

She is now entering her third year since treatment was instituted and remains free of disease, either local or metastatic.

DISCUSSION: When first seen surgery was impossible. Later, without surgery the case would have been a failure. With the use of both, the patient is free of pain and is living a comfortable life.

CASE II. Mrs. C. H. Diagnosis: Carcinoma of the cervix with metastasis. First seen on November 17, 1935.

On May 30, 1933, it was reported that a tumor was removed from the cervix by a well known master surgeon and 100 milligrams of radium applied for thirty hours. Bleeding recurred and on November 20, 1933, a second application of radium was given by the same surgeon. Previous to the first application of radium, she had had profuse bleeding at menstruation for one year and had persistent blood stained vaginal discharge. After the first application

of radium in May, she had one menstrual period and then ceased to bleed. Following the second application of radium, she had no further bleeding until November, 1935, when she consulted the same surgeon and was told that nothing further could be done to give her relief.

On examination, we found a well developed, fairly well nourished female, showing evidence of anemia. The cervix was increased in size plus two, stony hard. The vaginal walls around the cervix, particularly the right anterior portion, were increased in density and thickness extending into the anterior vaginal and bladder walls. Her most prominent symptoms were pain, urinary frequency and distress. Pelvic metastasis was present and the inguinal and pelvic lymph nodes were palpable. A metastatic mass partially obstructing the rectum was present.

In November, 1935, she received two applications of radium, one given inside the urinary bladder, 100 mg. hrs., the other against the anterior vaginal wall 700 mg. hrs., using $\frac{1}{2}$ millimeter of brass and $\frac{1}{2}$ millimeter of lead as filters. From November 17 to December 12, she received daily applications of X-ray to the pelvis through anterior and posterior portals.

When she returned February 26, 1936, she had had seven weeks comfort, being free of urinary distress and frequency and free of pain in the pelvis. Two weeks before returning, she had burning and frequency of urination, and pain had returned in the bladder and pelvis. All the superficial inguinal and pelvic lymph nodes that were palpable had disappeared. There was decided improvement in that the amount of neoplastic tissue in the broad ligaments and anterior vaginal wall was greatly reduced in thickness. She had had some relief from the stricture in the rectum.

As there had been recession in the metastasis and disappearance of the inguinal and pelvic lymph nodes, no X-ray was given. She received two and one-half hours application of radium in the bladder, using fifty milligrams, a four hour application in the rectum, using one hundred and fifty milligrams of radium, and fifteen hour application, using one hundred and fifty milligrams of radium against the anterior vaginal wall.

Following this treatment, she had relief for fourteen months. When she returned, she received a series of X-ray treatments using 400 KV. She looked well, had regained normal weight and again her chief

symptoms were urinary distress, frequency and pelvic pain.

Vaginal examination now showed induration around the vaginal and urethral orifices, with marked reduction in the vaginal capacity. The cervix was represented by a stony-hard mass that was fixed. Little change was noted in the rectal stricture.

Between April 22, 1937, and May 17, 1937, she received approximately 3000 r units of X-ray to the pelvis through anterior and posterior portals. For relief of pain she would occasionally use Empirin Compound No. 3 and suppositories containing one grain of the extract of opium.

Her comfort had certainly been remarkable and her severe pain did not recur. She died in April, 1939.

DISCUSSION: Had she received the proper radium and X-ray therapy in 1933, we believe she would have had a chance for cure. 3000 mg. hrs. of radium is rarely sufficient for arrest for more than a few months. There are very few reported arrests of five years duration where less than 4500 to 5000 mg. hrs. of radium element have been given. It is the same old story—the physician who sees the patient first gives her the best chance for recovery, provided the proper therapy is applied.

CASE III. Mr. A. O., age 73; Microscopical Diagnosis: "Prickle cell carcinoma of the skin (J. D. A.)."

The lesion first appeared in 1934 on the left cheek and temple near the hairline. He was treated by 130 K. V. X-ray, then in 1935 by radium. In 1936 by excision with cautery removing a small amount of bone, followed by X-ray and then by sun-ray. The lesion, of an ulcerating type, extended posteriorly involving and destroying the greater part of the left external ear. (Fig. 1).

We first saw him in May, 1938. He had had no treatment for six months. The base of the external ear was destroyed and the flap of ear was being held up by a strip of adhesive to his bald head.

The ulcer was 4 x 10 cm. in size, involving the skin around the upper part of the ear, extending forward upon the temple for three or four cm. and into the skin of the mastoid area for a similar distance. The ear, when released of adhesive, fell downward. The base and posterior margin of the ulcer were septic and very sensitive to touch. The ulcer was deep, with ragged, overhanging, irregular margins. The following day the remains of the ear were removed by cautery and the base dehy-



Fig. 1

Case 111—Prickle cell carcinoma of the skin with almost complete destruction of the external ear. This was recurrent after cautery, Superficial X-Ray, Radium therapy and surgery.



Fig. 2

Same as Fig. 1, 12 weeks after supervoltage X-ray therapy. Note epithelization extending out of the external auditory canal.

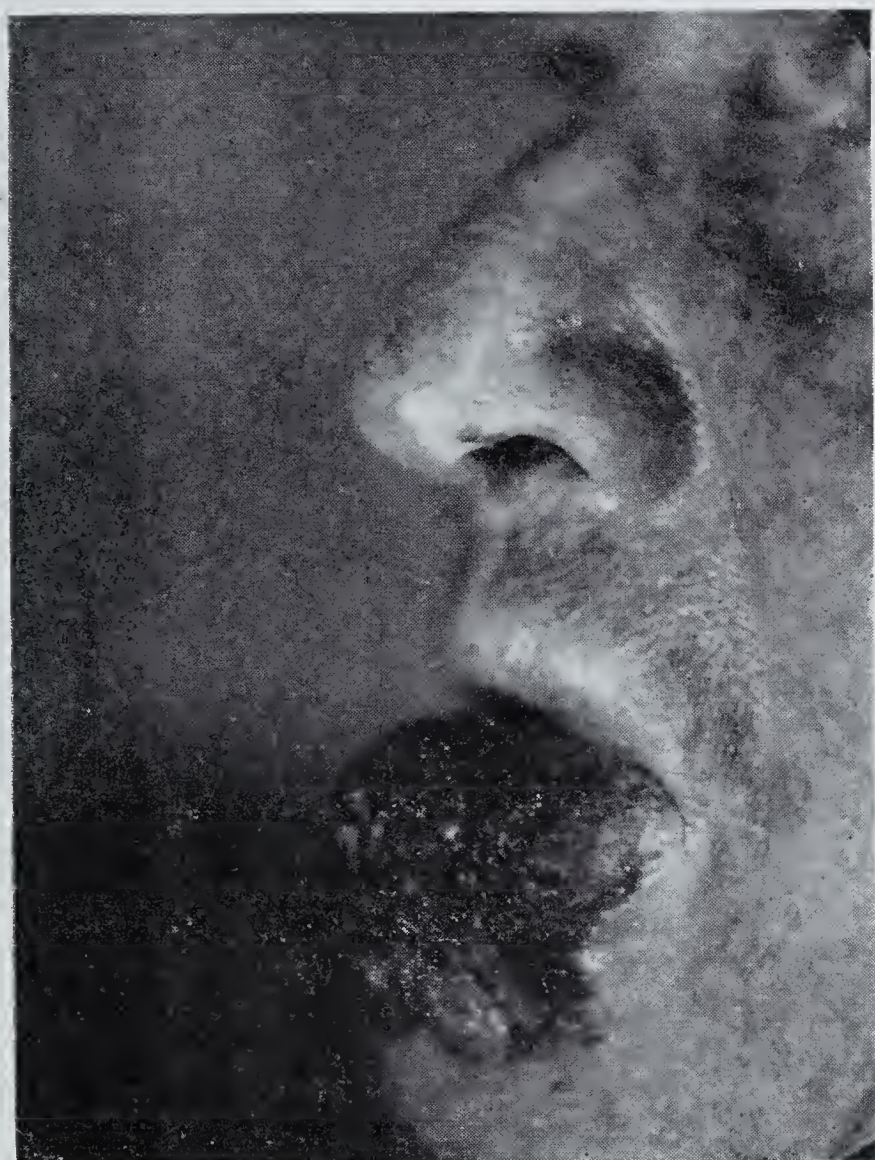


Fig. 3

Carcinoma of the lower lip in profile. Note the thickness of the tumor.

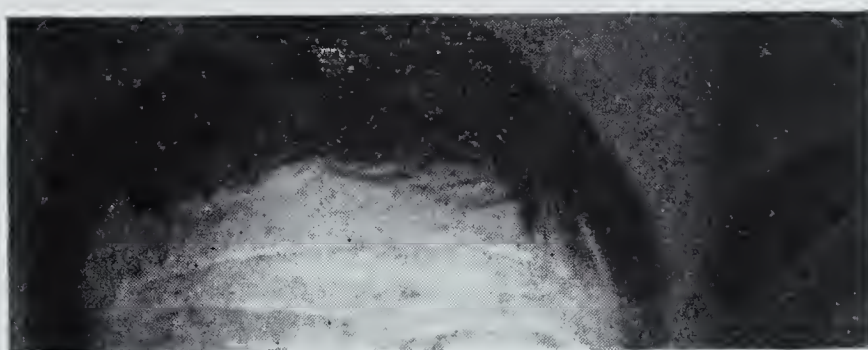


Fig. 4

Same as Fig. 3, anterior view.

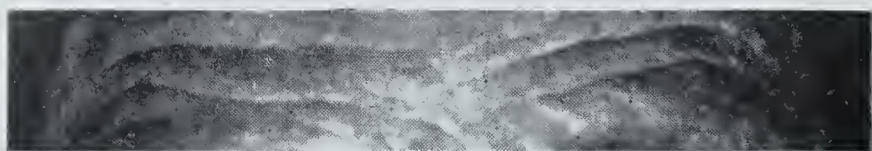


Fig. 5

Same as Fig. 3 and 4, 13 weeks after treatment. Note the lack of deformity, and the flexible scar, which one does not obtain with lower voltages and lower filtrations.



Fig. 6

Case IV.—Note the scar in the inner canthus of the eye where tumor had recurred three times. This was made 2 years after treatment, with no recurrence.



Fig. 7

Ulcerated carcinoma of the breast with extension and ulceration in the axilla.



Fig. 8

Same as Fig. 7, 6 weeks after 4,995 r units supervoltage X-ray through a 20 x 20 cm. portal. Complete recovery from the radio-epithelitis has not occurred, though healing is almost complete. Note the prominence of the nipple in contrast to the retracted nipple in Fig. 7.

drated by electrocoagulation.

In May and June, 1933, he received 5,062.5 r units of 400 K. V. X-ray in daily doses of 135 r. The treatment lasted 35 days, not including Sundays.

Epithelization was not complete until February, 1939. The interesting point was that the epithelium from the external ear canal grew out and covered the ulceration.

He was last seen April 6, 1940, and the lesion has remained healed, though a portion of the scar shows a tendency to keratinization. Prickle cell carcinoma of the skin is the most resistant of all skin cancers, and I feel that if one can arrest this type of malignancy after five years of poor treatment and mistreatment, he should be able to cure most of the skin cancers.

CASE IV: Mrs. I. K., age 50. The lesion was of the skin of the inner canthus of the left eye, arising in a scar from operation on the tear duct. From September, 1935, to August, 1937, she received 5 applications of radium. Healing occurred after each application, followed by recurrence; with each recurrence there was more evidence of a dense, stony hard, bulky tumor and ulceration followed.

Super-voltage X-ray therapy was given during October and November, 1937, through a 2 cm. circular portal. The total dosage was 5,062.5 r, given in 25 days, not including Sundays.

The tumor disappeared after treatment with complete epithelization. The scar is depressed, though very flexible and hardly visible (Fig. 3). The patient remains free of disease to date, February 7, 1940.

Here is a tumor that receded and recurred frequently under radium treatment, each recurrence being a little larger, more bulky and more resistant. The longest period of healing was more than one year. The lesion has remained healed for two years and six months following super-voltage therapy. This demonstrates the value of super-voltage X-ray given through a small portal to a very resistant tumor.

CASE V: Mr. E. B., age 53. "Squamous cell carcinoma of the oral cavity." History of six years duration, caused from a sharp, ragged tooth. Nine months previously two lower molar teeth were extracted and, following this, the growth was more rapid.

The growth involved the greater portion of the mucous membrane of the left cheek and both surfaces of the mucous membrane of the left lower alveolar process. The tumor was bulky and the regional lymph-

nodes were palpable.

In June and July, 1939, he received 3,982.5 r units of super-voltage X-ray therapy, given in 19 treatments, some days receiving two treatments of 202.5 r units each. He also received topical applications of platinum-filtered radium to two areas of the left cheek and to the buccal side of the left lower molar region of the alveolar process.

From the patient's description, the reaction was quite severe. When seen 78 days after beginning of super-voltage therapy, the multiple tumors had disappeared, leaving no scarring of the mucous membrane of the alveolar process, while the cheek showed visible and palpable scarring even of the skin. The regional lymph nodes had disappeared. Epithelization of the left cheek was almost complete, while that of the right cheek was complete. All of the leukoplakia had disappeared.

A 15 x 15 cm. portal was used on account of the palpable regional lymph nodes. The patient remains well to date, April 4, 1940, and no regional lymph nodes are palpable. His weight is 170 lbs.; a gain of 40 lbs.

CASE VI. Mr. E. C., age 50. X-ray and surgical diagnosis: "Carcinoma of the stomach."

The patient had had gastric symptoms of distress and pain periodically for the past thirty years. The present symptoms, of only three months duration, were loss of appetite and loss of strength. There was severe nausea for the past two weeks and vomiting for the past week.

The tumor involved all of the stomach except a few centimeters of the pre-pyloric area. This patient was seen ten days after a laparotomy by Dr. J. A. Kirk. The surgical diagnosis was "Carcinoma of the cardiac half of the stomach, or more." No biopsy was made.

During the first week of the super-voltage therapy, the appetite was greatly improved and no nausea appeared until the tenth day of treatment. In the night of the twenty-first day of treatment, following a purgative, he had a copious jelly-like stool that was dark in color. The following morning while in the X-ray therapy room, he complained of nausea, appeared to be in shock and vomited a large quantity of bright red and black clotted blood. Thirty minutes later he had a large involuntary stool, again vomited, became pulseless and said, "I am gone."

External heat, subcutaneous saline and morphine hypodermically were given. The

following day a transfusion was given. The next day another gastric haemorrhage occurred and he again was thought to be dying. Following subcutaneous saline, external heat and transfusion, he revived. No further X-ray therapy was given. He went home eleven days later, prepared for an early death.

He received 2,835 r units of super-voltage X-ray through a 20 x 20 cm. field, using anterior and posterior portals. He recovered from his anaemia, regained his strength and has done light farm work through the summer of 1939. His maximum weight during convalescence was 170 lbs.; a gain of 50 lbs.

From the X-ray films, my impression is that this is a lymphosarcoma of the stomach. The last film, made February 1, 1940, 15 months after treatment began, shows induration of the stomach with some loss of flexibility but no tumor deformity. (Fig. 4-5).

The physical factors in this method of radiation are 400 K. V., Thoraues filter equivalent to 6.5 mm. copper, 5 M. A., 70 cm. skin distance with an intensity of 13.5 r per minute measured in air. The measurements were made by Otto Glasser. The Thoraues filter consists of .8 mm. Sn, 1/4 mm. Cu., 1 mm. Al.

The size of the field has varied from 2 to 3 cm. (inner canthus of orbit) to 20 x 20 cm. square, always being sure to cover a larger field than the lesion.

In the intra-abdominal lesions, including carcinoma of the urinary bladder, no cross-firing has been attempted except what is obtained through anterior and posterior portals. Where the entire abdomen is radiated, such as generalized metastases or transplants from ovarian carcinoma, two or more fields are necessary to radiate the entire peritoneum. The daily dose has been low, from 135 r to 202.5 r.

DISCUSSION: All the cases reported were considered hopeless cases by others. They showed extensive lesions that were inoperable or were cases that had been treated and re-treated with numerous recurrences. In these cases, as well as in all others where resistant malignancies are present, severe skin reactions are necessary, as results cannot be obtained without severe radio epithelitis.

We hear so much of education for the laity in that the cases should come in early. This is correct and throws a hardship on the physician, as cases of malignancy com-

ing in early are difficult, if not impossible, to diagnose. The profession at present is put to a test to educate themselves on the diagnosis of early malignancy and the care of the cases that come in late. Unless you know what the patients may expect they do not receive proper advice.

PROLAPSUS UTERI

MISCH CASPER, M. D.

Louisville

Prolapsus uteri is an age-old subject; still the treatment of its unfortunate sufferers is far from standardized by the medical profession. Gynecologists are much better agreed than is the profession in general on the care of such cases, but insist that each case is a separate and distinct problem.

The etiology is pretty well known, the commonest cause being tears of childbirth, or subinvolution of the uterus, usually both together, aggravated by the connective tissue relaxation and muscular atrophy of the pelvic floor that go with advancing years. Certainly with this muscular atrophy the condition is always progressive.

The first stage of prolapse is about the same as retroversion of the uterus, in which the symptoms are mild until about the time for the menopause, at which time the condition assumes a dual role of mischief, often prolonging the menopausal period with its train of symptoms, such as inordinate uterine bleeding, bowel and bladder symptoms, and a chain of nervous and even psychic symptoms that may extend over years. The nicely harmonized interlocking hormonal function of the gonads is often deranged, sooner or later giving a very much complicated syndrome. No doubt many of the patients in hospitals for mental conditions could be reclaimed to society if gotten early and appropriately treated. Serving for seven years on the Jefferson County Alienist Commission has very forcibly brought this very condition home to me. Certainly such women are often wan, "don't-care" individuals who appear to have lost all hope.

The uterus in its descent pushes the bladder down ahead of itself, as a rule, though the rectum may be herniated in some cases.

Incontinence of urine, dribbling and soiling, with its accompanying foul odor is a very distressing and often a very early complication. This symptom is not only a source of distress to the patient, but is often a hidden cause of divorce. We have such a case now.

Prolongation of the neck of the uterus accompanies prolapse. The diagnosis is not difficult; in fact, as a general rule, the patient readily tells the diagnostician that the trouble is "falling of my organs." Many symptoms may accompany this condition, and a train of referred symptoms of disabling proportions may be present.

TREATMENT: Prevention is our first thought. The condition is common and is not being reduced. The sedentary life led by the average woman of today, with insufficient physical work and with lack of the proper kind of exercise—this, coupled with wearing of high heels and indulgence in liquor and tobacco, tends to make present-day women poor subjects for child-bearing, or child raising. Lack of prenatal care is a predisposing cause of all kinds of postnatal complications. This is a big problem for the doctor with a large rural practice, and it is not the fault of the physician, for too often the first he knows of an impending labor case is the hurried and untimely call after labor has begun.

Lacerations, no doubt, are the main cause of prolapse and, together with involution of the uterus, as stated, constitute the cause in nearly all cases. Getting out of bed too early after delivery and before sufficient resolution of the uterus has taken place, is a significant contributory cause. Here again, the patient too often disregards the doctor's orders.

Once started, prolapse is progressive, and many mechanical principles aid the process, such as upright position, heavy work, increased intra-abdominal pressure, straining at stool, prolonged distention of the bladder, and so on, and, as mentioned, the relaxation and weakening of the muscles as age goes on. From time immemorial pessaries and supports of all kinds have been used. Present-day gynecologists recognize that at best pessaries and supports are of only temporary value; and as the tone of the vaginal structure stretches and gets weaker, soon the utmost of stretching is reached. Pessaries being unsanitary, and causing ulcers and irritation, are to be generally condemned.

We have here a mechanical condition: 1st.

lack of pelvic floor support below, displacement of organs and stretching ligaments above.

First stage prolapse can be handled by strengthening the ligaments above and repairing lacerations below, usually quite a simple procedure. There are many combinations of these operations, different surgeons having slightly different methods, several of which are approved. Some fit one case best and some another, much depending on the combination of pathology present, as well as on the age of the patient; in fact the menopause makes a dividing line of procedure.

Complete or nearly complete procidentia is quite a different problem, because the bladder is the most difficult to replace and keep in place.

After the menopause two distinct procedures are standardized: 1st. Watkin's interposition operation; 2nd. vaginal hysterectomy of the Mayo type, with accompanying repairs and interposing round and broad ligaments as a shelf to hold up the bladder. We will show a moving picture of these two operations; however, we follow the technique of the famous gynecologist of Edinburgh, B. P. Watson, whose clinic we visited in company with Dr. Charles H. Mayo, who gave us the technique of the Mayo vaginal hysterectomy, one of his great contributions to surgery. Dr. Watson's operation is tedious, and many surgeons report a percentage of failures; however, with proper technique excellent results are obtained. We wish to emphasize that the uterine structures are to be anchored to the periosteum of the rami off the symphysis, and the uterus placed under the bladder, holding the latter up. Most of the technique will be plainly depicted in the motion picture.

The after-treatment of any of these operations is important. A retention catheter should be placed in the bladder, and the foot of the patient's bed should be raised. General building up of the patient's depressed and often forlorn state is very important. With a successful result, she will be rejuvenated, and will feel that her life is dated back ten years or more.

Youthful Old Age.—Health is a very precious jewel and the only thing, that in pursuite of it deserveth, that a man should not only employ time, labour, sweate, and goods, but also life to get it, forasmuch as without it, life becometh injurious unto us. Voluptuousness, Science, and Vertue, without it tarnish and vanish away.—Montaigne.

HISTORICAL RESEARCH

KENNETH W. RAWLINGS

State Supervisor, WPA Medical Historical
Research Project

Many talented authors have written extensively on various phases of Kentucky's development. There are biographies of men who have contributed to the history of the State and nation, romances of the "Dark and Bloody Ground," partly legendary, partly authentic; monographs, detailed and heavily documented dissertations proving this or that point in the story, all of which have added greatly to Kentuckiana. But in spite of all this, one phase of the State's development has suffered neglect. The history of medicine, until recently, had yet to be written. This seems a peculiar omission, as in this field Kentucky excelled. True, there are biographies of the more prominent men in medicine and articles on many medical subjects, but no narrative of the story as a whole.

To remedy this defect, at least in part, the WPA Medical Historical Research Project, sponsored by the Kentucky State Medical Association and the State Department of Health of Kentucky, was brought into existence. For more than two years field workers all over the State have secured wherever possible, from old newspaper files, medical journals, by interviews and elsewhere, material regarding this subject. From this data a narrative history of medicine and its development in Kentucky has been written. This history will be available June 1, 1940.

In addition to the publication of this volume, the project has assembled, typed, catalogued and filled more than 40,000 pages of data regarding the history of medicine and Kentucky's medical profession. This is deposited in the State Board of Health Building and is available for the use of interested individuals.

This file contains old newspaper accounts of epidemics, popular cures, obituaries, historical papers long out of print, extracts from medical journals, several thousand biographies of deceased physicians, references to all acts of the General Assembly relating to medical history, together with material on many other phases of the general subject.

One of the most interesting sections of this file deals with the founding of the Kentucky State Medical Association or Society, as it was first called. In addition to

newspaper accounts both before and after, the file contains a copy of the proceedings of a preliminary meeting held in 1841, ten years before Kentucky's physicians were successfully organized. While the late Dr. J. N. McCormack reprinted in the November, 1917, issue of the KENTUCKY MEDICAL JOURNAL the proceedings of several sessions of the Society beginning in 1851, the proceedings of the 1841 meeting, if he was aware of their existence, were omitted. Nor have they been re-published elsewhere.

Because of their historical value they are reprinted below. This copy was secured by micro-film from the Army Medical Library, Washington, D. C. Other than this, the only copy known is in the University of Pennsylvania Library.

Journal
of the
Proceedings of a Convention
of the
Physicians of Kentucky,
Held in Frankfort
on the

Eleventh Day of January, 1841.

Published for gratuitous distribution by
order of the Convention.

(Frankfort, Ky.

A. G. Hodges, State Printer.
1841).

PROCEEDINGS

FRANKFORT, MONDAY, JANUARY 11, 1841

Pursuant to a resolution from the Medical Association of Northeastern Kentucky, urging a convention of the Physicians of the State, to be held in Frankfort, on the second Monday in January, 1841, for the purpose of organizing State and District Medical Societies, the following gentlemen were present:

ANDERSON—D. G. Dedman.

BOURBON—J. Newton Smith, F. W. Major, C. E. Williams, E. Basey.

CLAY—John C. Wilson.

CLARK—Samuel D. Martin.

CAMPBELL—H. L. Ross.

FAYETTE—Benjamin W. Dudley, James C. Cross, J. G. Richardson, John T. Lewis.

FRANKLIN—A. A. Patterson, Lewis Sneed, E. H. Watson, L. J. Sharp, A. F. McCurdy, L. Y. Hodges, J. G. Roberts, C. A. Brooks, A. W. Vallandingham, Wm. Morris, D. H. Dickinson.

FLEMING—James E. McDowell, Ethelbert Logan, Isham Burdett.

GREEN—John Hardin.

GARRARD—George B. Mason.

HARRISON—A. H. Innis.

HENRY—J. N. Hughes, J. R. Berryman.

HARDIN—J. H. Rodman.

JESSAMINE—Alexander K. Marshall.

JEFFERSON—Daniel Drake, Charles Caldwell, L. P. Yandell, Wm. A. McDowell, J. B. Flint, John Overton, Wm. K. Sloane, Edward Jarvis, S. B. Richardson.

LIVINGSTON—James I. Miles.

MASON—John M. Duke, N. T. Marshall.

MARION—S. Shuck.

MERCER—R. W. Dunlap, Duff Green, John A. Tomlinson.

MADISON—C. J. Walker, Thomas S. Moberly, A. R. McKee.

NELSON—H. W. McCown, A. W. Hynes, J. R. Creel, Burr Harrison.

NICHOLAS—J. F. McMillen.

PENDLETON—James Wilson.

SHELBY—Harrison Hardin, R. B. Winlock, John T. Parker.

SPENCER—J. D. Beard.

TRIMBLE—John Thommasson.

TRIGG—Isaac Burnett.

WOODFORD—C. J. Blackburn, Theophilus Steele, Wm. Robinson, Luke P. Blackburn.

WASHINGTON—A. G. Rucker.

The following counties sent in their proxies:

Allen, Boone, Christian, Caldwell, Daviess, Edmonson, Gallatin, McCracken, Oldham, Simpson.

Total number of counties represented 39.

Total number of members present 69.

Total number of members present, and proxies, about 300.

The meeting was then called to order by Dr. McDowell, of Fleming. Dr. Burr Harrison, of Nelson, was elected to the Chair, and Dr. D. H. Dickinson, of Frankfort, appointed Secretary.

On motion of Dr. McDowell of Fleming,

RESOLVED, That the Chair appoint a committee of seven, embracing such of the committee calling this meeting as may be present, to consider and report, as soon as may be practicable, a plan of organization for this convention.

Whereupon the following gentlemen were appointed:

Drs. McDowell, of Fleming, Duke, of Maysville, Marshall, of Maysville, Lewis, of Lexington, Sneed, of Frankfort, Shuck, of Lebanon.

The Committee, having retired a few moments, returned as their report, the following:

RESOLVED, That the duties of this Convention require a President, two Vice Presidents, and a Secretary, and that the following gentlemen be appointed, viz: Dr. Burr

Harrison, President; Drs. Daniel Drake and J. C. Cross, Vice Presidents; Dr. D. H. Dickinson, Secretary.

Dr. Drake having declined the nomination, the question was taken upon the report as it then stood, and it was adopted.

Dr. Tomlinson was then elected to fill the vacancy occasioned by Dr. Drake's declining to serve.

The Convention thus organized, the President announced the object of the meeting by reading the circular addressed to the Physicians of the State, by the standing committee of the Medical Association of Northeastern Kentucky.

On motion of Dr. Caldwell,

RESOLVED: That a committee, of seven, be appointed, by the President, of which all the members of the standing committee of the Medical Association of Northeastern Kentucky, who may be present, shall be members, to report on the best means of carrying out the objects contained in the circular of the said standing committee, addressed to the Physicians of the State.

The following gentlemen were appointed:

Drs. Marshall, of Maysville, Duke, of Maysville, Dudley, of Lexington, C. J. Blackburn, of Woodford, McDowell, of Louisville, Tomlinson, of Harrodsburg, Hughes, of Henry.

On motion of Dr. Drake,

WHEREAS, This convention, although called to promote the establishment of a State Medical Society, may, being thus assembled, do other acts which have for their object the public good—therefore, be it

RESOLVED, That this convention will receive and entertain motions designed to elevate the moral and social character of the profession, advance benevolent enterprises, and improve the Science of Medicine, by memoirs and reports, especially on the diseases of Kentucky.

On motion of Dr. Drake,

RESOLVED, That a committee of five be appointed to make a report designed to promote the establishment, by the General Government, of Commercial Hospitals in the Valley of the Mississippi.

The President appointed as a committee—Drs. Drake, Cross, Sharp, Hardin and Major, of Bourbon.

On motion of Dr. N. T. Marshall,

RESOLVED, That a committee be appointed to wait upon Dr. Cross, and request that he will deliver a lecture upon Geology, before the Convention, this evening at 7 o'clock; and that the same committee wait upon Dr.

Drake, and request an address upon such subject, and at such time, as may suit his convenience.

Drs. Marshall, Rucker, and Roberts, were appointed the Committee.

On motion of Dr. Drake,

RESOLVED, That a committee, of three, be appointed to make a report on the state of preparatory education for the study of medicine within the State of Kentucky, and the best means of improving the same.

Drs. Yandell, J. D. Richardson, and Sneed, were appointed a committee.

On motion of Dr. Cross,

Drs. Sharp and Roberts were appointed a committee to wait upon the President of the Agricultural Society of the State, and inform him that the Convention will join their procession, and attend his discourse, agreeable to their letter of invitation.

The Convention then took a recess until 7 o'clock P. M.

MONDAY EVENING, 7 O'CLOCK

The Convention met pursuant to a resolution of adjournment.

Dr. Cross delivered a discourse upon Geology.

Dr. McDowell, of Louisville, then introduced a resolution for the suppression of quackery, which was referred to the following committee, viz:

Drs. McDowell, Hughes and Tomlinson.

The Convention then adjourned till 10 o'clock Tuesday morning.

TUESDAY MORNING

The convention met pursuant to adjournment, when the following resolutions were submitted by Dr. J. B. Flint, of Louisville, and referred to the Committee on Education.

Whereas, a considerable amount of literary and scientific attainments is requisite to the successful pursuit, even of the elementary portions of Medical knowledge; and, as the basis of that general intellectual culture, and good scholarship which should characterize the members of a learned and liberal profession, and is sure to promote the professional progress of its possessor, as well as the dignity and influence of his calling—therefore,

1. RESOLVED, That it is incumbent on the Medical Schools of the country to regard general scholarship, and scientific proficiency, as one of their conditions of graduation.

2. RESOLVED, That in the opinion of this Convention, no individual should be considered as a candidate for a diploma or certificate of Medical competence, by any

Faculty, or body of physicians, authorized to confer it, who has not at least *four full years* to professional and scientific study, under the direction of some respectable Medical practitioner; *Provided, however,* That if it appear that he has pursued a regular course of study in the arts, in some reputable college, or if he produces a certificate from the President or Faculty, of such an institution, that he has passed a satisfactory examination in the *reading, writing, and grammatical construction of the English language; in the elements of Mathematics, Natural Philosophy, and Natural History;* and in the leading facts of *Geographical Science*—in either of these expected cases the period of professional pupilage required shall not exceed *three full years*, to be passed under the superintendence of some reputable practitioner.

3. RESOLVED, That we respectfully recommend to the Trustees of Transylvania University, and to the Managers of the Louisville Medical Institute, the incorporation of the principles of the foregoing resolution into their "conditions of graduation;" and that they require a rigid adherence to them, on the part of their respective Faculties, in determining the qualifications of aspirants to the honor and privilege of a degree.

Dr. Marshall, Chairman of the Committee to whom was referred the resolution to report on the best means of carrying out the objects indicated in the circular from the Medical Association of Northeastern Kentucky, offered as their report the following:

CONSTITUTION AND BY-LAWS

For the establishment, throughout the State, of a uniform system of medical etiquette, by which a harmonious intercourse in the profession may be promoted and secured—that there may be fixed a set of rules and regulations, for the directing the practical action of our physicians into concert, uniformity, and efficiency—to the end that through these means all the talent—all the learning—all the energies, of the entire faculty of Kentucky, may be brought to bear on every point of difficulty, or interest in our science—and that their united exertions may be given to all measures that may elevate and sustain the honor, dignity and usefulness of the profession—the physicians of Kentucky in general convention assembled, agree to adopt, and solemnly pledge their best aid to the support of the following system of etiquette.

1. CONSULTATIONS

Consultations should be encouraged in

difficult and protracted cases, as they give rise to confidence, energy, and more enlarged views to practice. On such occasions no rivalry or jealousy should be indulged—candor, justice, and all due respect should be exercised towards the physician who first attended; and as he may be presumed to be best acquainted with the patient, and his family, he should deliver all medical directions as agreed upon. The consulting physician, or if there be more than one, the senior consultant shall have precedence in the proposals of questions to the patient.

The consulting physician is never to visit without the attending ones, unless by the desire of the latter, or where, as in sudden emergency, he is not to be found.

No discussion of the case should take place before the patient, or his friends; and no prognostications should be delivered which were not the result of previous deliberation and concurrence—Theoretical debate, indeed, should be generally avoided in consultation as occasioning perplexity and loss of time, for there may be much diversity of opinion on speculative points, which perfect agreement on those modes of practice which are founded not on hypothesis, but on experience and observation. Physicians in consultation, whatever may be their private resentments, or opinions of each other, should divest themselves of all partiality, and think of nothing but what will most effectually contribute to the relief of those under their care.

If a physician cannot lay his hand on his heart and say that his mind is perfectly open to conviction, from whatever quarter it may come, he should in honor decline the consultation. All discussions and debates in consultation are to be held secret and confidential. Although there are many advantages from two consulting together who are men of candor, and who have mutual confidence in each other's honor, yet when such mutual confidence does not exist, a consultation should always be declined.

The utmost punctuality should be observed in consultation visits, and to avoid loss of time, a fixed space should be established in every district, as an allowance for delay—after which the meeting may be considered as postponed for a new appointment.

II. INTERFERENCES

Practitioners of medicine are, or ought to be, men of education; and their expectations of business and employment should be founded on their degrees of qualifica-

tion, not on artifice and insinuation—a certain undefinable species of assiduties and attentions, therefore, to families usually employing another, is to be considered as beneath the dignity of a regular practitioner, and as making a mere trade of a learned profession—and all officious interferences, in cases of sickness in such families, evince a meanness of disposition unbecoming the character of a physician, or a gentleman. No meddling enquiries should be made concerning them, nor hints given relative to their nature or treatment, nor any selfish conduct pursued that may directly, or indirectly, tend to weaken confidence in the physician or surgeons who may have the care of them. When a physician is called to a patient who has been under the care of another gentleman of the faculty, before any examination of the case, he should ascertain whether that gentleman understands that the patient is no longer under his care; and until he is so advised—(save when it is entirely impracticable, or instances of sudden attack)—the second physician is not to assume the charge of the patient, nor give his advice, without a regular consultation.

It frequently happens that a physician, in incidental communications with the patients of others, or with their friends, may have their cases stated to him in so direct a manner as not to admit of his declining to pay attention to them. Under such circumstances his observation should be delivered with the most delicate propriety and reserve. He should not interfere in the curative plans pursued, and should recommend a steady adherence to them if they appear to merit approbation, or otherwise be silent.

III. DIFFERENCE OF PHYSICIANS

As a peculiar silence and reserve which must attend the practical movements of physicians—and as the countless points in ethics and etiquette, through which their feelings may be painfully assailed in their intercourse, cannot, in the nature of things be understood or thought of by general society—therefore, in the differences of physicians, when they end in appeals to the public, they most hurt the contending parties—but what is worse they discredit the profession, and expose the faculty itself to contempt and ridicule. Whenever then such difficulties occur as may effect the honor and dignity of the profession, and cannot immediately be terminated, or do not come under the character of violation

of the especial rules of the Society otherwise provided for, they should be referred to the arbitration of a sufficient number of the members of the society, according to the nature of the dispute; but neither the subject matter of such references nor the adjudication, should, if it can be avoided, be communicated to the public as they may be personally injurious to the individuals concerned, and can hardly fail to hurt the general credit of the faculty.

IV. DISCOURAGEMENT OF QUACKERY

The use of quack medicines should be discouraged by the faculty as disgraceful to the profession, injurious to health, and often destructive even to life. No physician or surgeon, therefore, should dispense a secret nostrum, whether it be his own invention or exclusive property; for if it is of real efficacy, the concealment of it is inconsistent with beneficence and professional liberality and if mystery alone give it value and importance, such craft implies either disgraceful ignorance, or fraudulent avarice.

V. CONDUCT FOR THE SUPPORT OF THE MEDICAL CHARACTER

Every man who enters into a fraternity engages, by a tacit compact not only to submit to its laws, but to promote the honor and interest of the Association, so far as they are consistent with morality and the general good of mankind. A physician therefore, should cautiously guard against whatever may injure the general respectability of the profession—and should avoid all contumelious representations of the faculty at large—all general charges against their selfishness or improbity, or the indulgence of an affected or jocular skepticism concerning the efficacy and utility of the healing art.

VI. FEES

Each district society shall adopt its own scale of fees, beneath which, they shall not charge, and it shall be deemed a point of honor to adhere to it; and every deviation from, or evasion of the spirit of these rules, should be considered as meriting the indignation and contempt of the fraternity. In all cases it shall be the duty of the practitioner, to apprise the patient by bill, or otherwise, of the *whole amount* and value of services rendered; but the practitioner, in settlement, may make any deduction which he conscientiously believes that the circumstances of the patient render necessary, provided, however, that he *distinctly states* that this deduction is made from a

belief that the patient is not able to bear the *full charge*.

No member of the society shall directly, or indirectly, contract with any individual, or family, for a definite sum as a compensation for his annual attendance upon that individual or family.

Gratuitous services to the poor are by no means prohibited—the characteristics beneficence of the profession is inconsistent with avaricious or sordid views.

VII. EXEMPTION FROM CHARGES

Every physician (when called on in the limits of his practice) should, as a courtesy, give gratuitous attention to all members of the profession in regular practice; also to such as have retired from age or any frailty, and to their families during their (the physicians) lives, and after their death, while their widows hold their families together. Physicians, whose wealth has enabled them to retire from a regular business, should, for obvious reasons avoid gratuitous attention; and when they do make a charge, should be governed by the laws on this point of regular practitioners in their district. The clergy may also be exempt from charge.

VIII. VICARIOUS OFFICES

Whenever a physician officiates for another by his desire in consequence of sickness or absence, if for a short time only, the attendance may be performed gratuitously, as to the physician, and with the utmost delicacy towards the professional character of the gentleman previously connected with the patient.

IX. SENIORITY

Seniority among practitioners in any town, or section of country, should be determined by the period of public and acknowledged practice as physicians in the same.

RULES AND REGULATIONS

This Society shall be known by the name of the *State Medical Society of Kentucky*, and shall convene, annually, on the Wednesday succeeding the second Monday of January, in the town of Frankfort. The President shall call the Society to order at 10 A. M. and the meeting shall continue from day to day till the business of the Society shall be concluded.

OFFICERS

There shall be the following officers of the Society, a President, four Vice Presidents, a recording and a corresponding Secretary and a Treasurer, who shall be chosen at the regular annual meeting by ballot, and a majority of the votes present shall be

necessary for a choice—and they shall hold their offices until their successors are duly qualified.

The President shall preside at all the meetings, preserve order, regulate any debates that may occur, state and put questions agreeably to the sense and intention of the members, and deliver the annual address.

In the absence of the President, his duties shall devolve upon the Vice Presidents, according to seniority. Should neither the President nor one of the Vice Presidents be present, a Chairman *pro-tempore*, shall be selected by the Society, who shall be invested with all the privileges and duties of the President.

It shall be the duty of the Recording Secretary to take down the minutes of the Society, which he shall read at the next meeting, and when corrected, copy into a book kept for that purpose; he shall record all reports of committees at full length, together with all motions, having the name of the proposer and the person who seconds them attached; and shall sign his name to the minutes of the meeting.

The Corresponding Secretary shall conduct the correspondence of the Society, and read the same at each meeting, and transcribe into a book kept for that purpose, such as the Society may deem worthy of preparation.

The Treasurer shall collect and take charge of all moneys due the Society, and shall pay the same according to their order; keep an account of all moneys paid out, and make an exhibit of his accounts at each meeting, and deliver to his successor his books.

In the event of vacancy in the office of Corresponding or Recording Secretary or Treasurer, the President shall have power to fill it *pro-tempore*.

All who hold membership in the District Societies shall be considered members of the State Society.

EXERCISES OF THE SOCIETY

The exercises of the Society shall consist of papers or addresses on some subject connected with the science of medicine. A paper shall be required from at least six of the District Societies, which shall be selected by the President. Reports shall be requested from the District Societies generally, upon the diseases, medical, topography, statistics, climate, botany, geology, and peculiarities of their particular regions—communications on points of especial interest and importance shall be requested

from the aged and learned of the profession throughout the State.

All committees shall be appointed by the President, unless the business be of a very extraordinary nature, when the Committee may be selected by ballot.

EXTRAORDINARY MEETINGS

When in the opinion of the President, it shall be considered of sufficient importance to the interests of the Society, he shall have power to appoint a called meeting, and shall require the Corresponding Secretary to advise the President of all the District Societies of the fact, at least one month previous to the appointed time.

Twenty members shall constitute a quorum to do business.

In all cases of difficulties in the District Societies, appeal may be had to the State Society, whose decision shall be final.

No rule or regulation of the Society shall be altered, amended, or repealed, nor additional regulations adopted at any meeting, but by a vote of three-fourths of the members present.

No Society now in existence, or which may hereafter be found, shall be permitted to hold connection with this, which shall not adopt the foregoing system for their government.

No District Society shall adopt any rule conflicting with the above.

N. T. Marshall
J. M. Duke
B. W. Dudley
C. J. Blackburn
W. A. McDowell
J. N. Hughes
J. A. Tomlinson.

On motion of Dr. S. B. Richardson of Louisville,

RESOLVED, That a Corresponding Secretary be appointed by nomination, and that he, and the other officers of the Convention, be continued in office, acting under the provisions of the constitution formed by this Convention, until the *full organization* of the first session of the State Medical Society, which shall take place on the Wednesday succeeding the second Monday in January, 1842.

On motion of Dr. Drake,

Dr. N. T. Marshall, of Maysville, was appointed Corresponding Secretary.

On motion of Dr. S. B. Richardson,

RESOLVED, That the Corresponding Secretary of this Convention, address to the physicians of each county in the State (directed to the county seats) a copy of the Constitution and by-laws formed by this

Convention, accompanied with this resolution, and urge them to organize themselves *immediately*, into district societies; the limits of which, shall be prescribed by themselves. And that as early as practicable, they send to him a copy of their Constitution and by-laws, signed by the officers, together with a list of their members—and if their organization be in accordance with the Constitution aforesaid, he shall thereupon enroll their names as members.

RESOLVED FURTHER, That the Corresponding Secretary, in the month of June next, publish the returns he may have received, and give the number of societies organized, together with the number of their members, and also their bounds and points of meeting.

Dr. Yandell, from the Committee on Education, offered the following report, which after much discussion, was adopted.

The Committee, to whom was referred the subject of Medical Education in Kentucky, beg leave to report the following preamble and resolutions:

Whereas, deficiencies are admitted to exist in the present system of Medical Education in the United States, impairing the dignity and usefulness of the profession; and, whereas, the remedy for this evil can be effectually applied by those only who have the training of students of Medicine; Therefore,

1. RESOLVED, That no physician ought to receive, as a pupil, any young man whose capacity, morals and preliminary education are not such as to afford fair promise of his becoming a respectable and useful member of the profession.

2. RESOLVED, That the period of study required of pupils by the American Medical Schools ought to be extended; and that an extension of the Lecture term from four to six months would do much towards elevating the professional standard of the country.

3. RESOLVED, That a convention of the Teachers in the Medical Schools of the United States be earnestly recommended, to take into consideration the means of promoting these objects.

L. P. Yandell, Chairman.

J. C. Richardson

Lewis Sneed.

Dr. N. T. Marshall, from the committee appointed to wait upon Drs. Drake and Cross, reported that the committee had attended to the duties assigned them, and

that Dr. Drake would read a paper before the convention at half past 3 o'clock.

The Convention then adjourned till half past 3 p. m.

Pursuant to the resolution of adjournment, the Convention met at half past three o'clock, and having listened to the first part of a paper on Milk Sickness, from Dr. Drake.

On motion of Dr. Dickinson,

The following resolutions were adopted:

RESOLVED, That 500 copies of the proceeding of this Convention be published, in pamphlet form, for distribution.

2. RESOLVED, That a committee of enrollment be appointed, to assist the Secretary in making up the minutes of the Convention and prepare them for publication. The President appointed Drs. Sharp and Sneed.

3. RESOLVED, That the President of this Convention be requested to deliver a discourse at the opening of the next annual meeting.

On motion of Dr. Drake,

RESOLVED, That each member contribute two dollars, to defray the expenses of the Convention, and that the Secretary, act as treasurer *pro-tempore*.

Dr. McDowell, of Louisville, from the committee, to whom was referred a series of resolutions, and accompanied with a memorial to the Legislature, for the suppression of quackery, made report. Pending the discussion upon adoption the Convention adjourned to half past six o'clock.

HALF PAST SIX O'CLOCK P. M.

The convention assembled and heard the conclusion of Dr. Drake's paper.

On motion of Dr. A. K. Marshall,

RESOLVED, That the resolution and memorial reported by Dr. McDowell, be re-committed, with instruction to report, only, in favor of suppressing the ending of secret remedies.

On motion of Dr. A. K. Marshall,

RESOLVED, That each member of this Convention who is disposed to become a member of the State Medical Society, will aid, as far as he can, in the formation of district societies, by calling the attention of the medical gentlemen of his county, *immediately*, to the subject.

On motion of Dr. Caldwell,

RESOLVED, That the thanks of the Convention be respectfully tendered to Dr. Burr Harrison, for the impartiality, dignity and ability, with which he has presided over its deliberation.

On general motion, the convention adjourned.

Burr Harrison, *President*.

D. H. Dickinson, *Secretary*.

The standing committee of the Medical Association of Northwestern Kentucky, have had published their code of Rules and Regulations—and with the hope that they may afford some assistance, in the organizing the district societies, respectfully tender them or their professional brethren.

RULES AND REGULATIONS

1st. This Association shall meet semi-annually, viz: On the second Friday in October and May, at 9 o'clock a. m.

2d. There shall be, as officers of the Association, a President, two Vice-Presidents, Secretary, Treasurer, and Standing Committee of three members; (President and Vice Presidents being ex-officio members of said Committee) to be elected by ballot, annually at the October meeting.

3d. It shall be the duty of the President, at each regular meeting, to appoint three members to prepare an essay, or report, on some medical subject, to be read at the succeeding meeting—also to solicit, from the association generally, papers on any subject connected with the science of medicine, but especially on their practical observations.

4th. It shall be the right and duty of the Standing Committee to call especial meetings wherever they judge proper—to attend to, and decide on, all matters which regard the honor or interest of the Association—especially to act upon all infringements of its regulations which may come to their knowledge. In all cases there may be an appeal from the judgment of the Standing Committee, to the Association. The committee shall fill any vacancy, in their own body, or in the office of Secretary, which may occur by death, or resignation, until the next stated meeting of the Association. This committee shall also constitute a board to examine applicants for admission to membership. And this Committee together with the Secretary, shall have power to make all assessments they deem necessary.

5th. The requisitions for membership shall be a diploma from some chartered Medical School conducted by "regular bred" Physicians, or a satisfactory examination by at least two members, of the Board, if they consider it necessary—together with good moral character in all cases.

6th. It shall be the duty of the Secre-

tary to act as Treasurer—to keep a record of the proceedings of the Association, and those of the Standing Committee, whose meetings he shall attend for this purpose—to call a special meeting of the Association whenever directed to do so by the Standing Committee—and likewise whenever it is requested, in writing by seven members of the Association. In the cases of both special and stated meetings, he shall send a notification, printed, or written, to each member, one week at least before the day of meeting—and shall advertise the same two weeks before the meeting, twice in two newspapers, printed in Mason County.

7th. No member of this Association shall consult with, or voluntarily meet in a professional way, or aid or abet, any practitioner resident in the limits of the Association who is not a member of the same.

8th. If any member becomes acquainted with the conduct of another member which he considers as a breach of the rules and regulations of the Association it shall be his duty to make the same known to the Standing Committee, who shall inquire into the case, and decide upon it as the circumstances may require.

9th. If a Physician be called to a patient, who has usually been attended by another Physician, on account of the urgency of the case, or the absence of the regular physician, he shall, before leaving, direct that the latter be sent for, to continue the attendance if necessary, and in no case shall he continue his visits, unless he receives subsequent notice from the patient that his continued attendance is desired—and that the previously attending Physician shall be informed of the change; provided, however, that the subsequent attention in cases of midwifery shall be an exception to the general tenor of the rule.

10th. The members of this Association shall charge for their professional services, the fees in the following table—subject, however, to the several rules contained in this code relative to the same.

For any ride within one mile,	\$1.00
" " " from 1 to 2,	1.50
" " " " 2 to 4,	2.00
" " " " 4 to 5,	2.00
" " " " 5 to 7,	3.00
" " " " 7 to 8,	3.50
All rides beyond this may be charged as extraordinary.	
Visit in town, . . . . .	.50
All night visits 100 per cent on above rates,	_____
Rising at night, . . . . .	.50

Detention all night,	5 to 10.00
“ 24 hours,	\$10 to 20.00
“ any shorter time	
at above rates,	—
A single case of accouchment, . . .	6.00
Difficulties according to degree,	
up to,	50.00
Removing placentia (alone),	3.00
Examination per vagina (alone),	2.00
Administering an Enema,	1.00
Powders in chartula, per doz., . . .	1.00
A dose of medicine,	0.25
Tinctures, per oz.,	0.25
Blisters when small,	0.25
Strengthening plasters,	0.50
Venesect—ext. teeth.—incis. gums,	0.50
Puncturing abscesses from,	1 to 5.00
Tapping for dropsy—from,	5 to 10.00
Cupping,	1.00
Passing catheter,	1.00
Written advice—from,	1 to 5.00
Consultation,	5.00
For an opinion involving a question	
of law in which a physician may	
be subpoenaed,	5.00
For a postmortem examination in a	
case of legal investigation,	5.00
For the operation of fistula in	
ano,	20.00
For treating Gonorrhea	
from,	5 to 10.00
For treating Syphillis	
from,	10 to 20.00
Reducing hernia (per taxes alone)	
from,	5 to 10.00
Reducing dislocations of toes and	
fingers,	1 to 2.00
Reducing dislocations of jaw, . . .	5.00
Reducing all other joints, hip ex-	
cepted, from,	5 to 20.00
Reducing dislocation hip,	
from,	10 to 50.00
Adjusting fractures of toes and	
fingers,	2.50
Adjusting fractures of all other	
bones, thigh excepted,	
from,	5 to 10.00
Adjusting fractures of thigh,	
from,	10 to 20.00
Amputation of toes and fingers, .	5.00
Amputation of all other members	
of the body,	25.00
All other capital operations	
from,	25.00 to 100.00
For obvious reasons, cities may claim	
the following exceptions from the	
above table, viz:	
For visits in daytime,	1.00
For visits at night,	2.00

For a simple case of accouchment, 10.00

For detention, per hour, 1.00

For visit to steamboat in daytime, 2.00

For visit to steamboat at night, . . 4.00

11th. The foregoing table is designed to state regular fees, but cases requiring extraordinary detention, on attendance, must occur, in all such cases, the charges shall be increased according to the judgment of the practitioner concerned.

12th. Such cases shall be considered extraordinary, as transient or foreign calls, or an attendance on such as occupy very conspicuous stations in society, whereby the responsibility is always extremely augmented.

13th. If in any case of midwifery, a second Physician is called in consultation, both the attending, and consulting Physician shall charge at least the usual fee for delivery—except that where the consulting physician in such a case pays only a consultation visit, and is not detained in attendance on the case, he may charge the fee for a consultation visit. In common cases of consultation, the attending Physician may charge a larger fee than for ordinary visits, provided that he does not charge more than the usual fee for consultation.

14th. In all cases, it shall be the duty of the practitioner to apprise his patient by bill, or otherwise, of the *whole amount*, and value, of the services rendered. But the practitioner in settlement, may make any deduction which he conscientiously believes that the circumstances of the patient render necessary. Provided, however, that he *distinctly states*, that this reduction is made from a belief that the patient is not able to bear the *full charge*.

15th. No member of this association shall omit charging any *necessary* visits made on the same day, on account of their number; nor make a previous contract with any family for a definite sum, as compensation for his annual attendance on that family.

16th. When the circumstances permit, every one may, with propriety, nay, even ought to present his account, immediately after his attendance in a fit of sickness. In ordinary cases of attendance in families, an account shall be presented every January—and it shall be an *invariable custom* to endeavor to settle all accounts by cash, or notes in *that month*, or at least annually.

17th. It shall be the duty of the Secretary, on the admission of an applicant to membership in this association, to send a

circular note to every member, informing them of his admission—and he is not to be entitled to the rights and privileges of the association until this has been done.

18th. The members of this Association, after arriving at the age of sixty, shall be exempt from all assessments—but in all other particulars shall be governed by the rules and regulations of this Association. If any member refuses or neglects to pay his assessment, his connection with this Association shall thereupon cease—and the Secretary shall inform the members of the same by a circular note, and the assessment left unpaid shall become a charge against the Association.

19th. The Secretary's records and accounts shall be subject to examination by the Standing Committee, and by the Association as they judge proper.

20th. All resignation of members shall be made in writing to the Secretary, who shall immediately lay them before the Standing Committee, who shall notify each member, or call a meeting of the Association, as they may think proper.

21st. No rule, or regulation of the Association, shall be altered, amended, or repealed, nor any additional regulations adopted at any meeting—unless the proposed alteration or amendment has first been referred to a committee, who shall report on the same at a subsequent meeting, which shall be held at a time not less than one month from the time of the appointment of the committee; and no amendment, or additional regulations, shall be adopted except by a vote of three fourths of the members present.

22d. Ten regular members shall constitute a quorum to transact business.

23d. Any Physician may be elected an honorary member of the Association, and such shall be exempted from all assessments.

24th. Each member on signing his name to the Rules and Regulations, shall pay to the Secretary one dollar.

25th. Any member not attending the regular meetings of this association, shall send a written excuse.

PSYCHOTHERAPY

SPAFFORD ACKERLY, M. D.

Louisville

A senior student said to the staff last week, "What are the goals you want us to shoot at? Do you want us to diagnose and to classify these patients?" I said, No, treatment is the keynote. In the first place, you are not to worry over whether this person coming to you has a neurosis or hasn't a neurosis. It is your responsibility first to decide whether this person sitting before you is functioning as a normal, well adjusted person at work, at home, in his neighborhood, with his family and friends, or is he not functioning as a reasonably normal, well adjusted person. For example, after studying your patient you may say with certainty, and it may be the only thing you can say with certainty, that my patient is a fairly intelligent, likable young man, steadily employed, and dependable, wants to get ahead. He is a good provider, loves his wife and children who in return love and respect him. He is thought well of in the community, keeps his friends, enjoys poker and gardening, goes to church fairly regularly, does not drink, or smoke to excess. He loses his temper occasionally, but for the most part maintains a happy, outgoing disposition. He comes to the clinic with a complaint of morning nausea as he drives to work.

There are five things it could be:

1. A normal person with:
 - (a) reversible, or irreversible organic disease (for instance, gastritis is reversible, a carcinomatous ulcer is irreversible).
 - (b) unexplained physical or other symptoms, in this case morning nausea.
2. A maladjusted person with:
 - (a) reversible, or irreversible organic disease.
 - (b) unexplained physical or other symptoms.
3. A psychoneurotic person with:
 - (a) reversible, or irreversible organic disease.
 - (b) unexplained physical or other symptoms.
4. A psychotic person with:
 - (a) reversible, or irreversible organic disease.
 - (b) unexplained physical or other

Rats—The country's rat population is double the human population, according to a report to the American Chemical Society on the development of insecticides. Each rat does at least \$2 damage annually, a total of more than \$500,000,000.

symptoms.

5. A person suspected of being a malingerer.

I have repeated one word throughout these five conditions—that word is “person.” What sort of “person” is this sitting in front of me. To know a person, I must find out how he behaves. I do not start in by worrying over whether the person before me has this or that type of psychoneurosis or a psychosis, nor do I allow the particular symptoms to take my mind off the person as a whole. As a rule, students get lost in the symptoms and cannot see the “forest for the trees.”

In the first place, I let him talk freely about his complaints that brought him to the doctor. Then I want to know about his general behavior, past and present, physically, mentally, socially and emotionally. I want to know what assets and handicaps he has, both native and acquired, what unusual pressures he has been under and for how long, such as painful and discouraging experiences, toxic stress, financial difficulties, etc. I also want to know what his nearest relatives think about him.

From this study of his general behavior, I have to decide whether this person measures up to what we ordinarily expect of a reasonably normal and well adjusted person. The conclusion is that this person mentioned above is reasonably normal and well adjusted. He gives no evidence that he is maladjusted or that he has organic disease, a psychoneurosis, a psychosis, or a need for malingering. His complaint of morning nausea then is not associated with any of these five conditions, except the first. He is eager to cooperate with the doctor for he wants to get well.

So far we have avoided the pitfall of putting a psychoneurotic label on this person,—a strong temptation with students and internes when no organic changes are found to explain the symptoms. Once a neurotic label is put into a hospital record, it is difficult to eradicate it. “Once a neurotic, always a neurotic” seems to be the prevalent idea. An interne once missed a case of typhoid fever because an old record contained a diagnostic label of psychoneurosis.

To return to the above patient, there is a gap at this stage of our thinking between his symptoms of morning nausea while driving to work and anything we yet know about him from the study of his general behavior. He does not know—we do not know. As a rule, students hate to be caught with

a “gap,” they want the answer right off, relatives want it, and oftentimes the referring agency is impatient. So the student tries to force an interpretation. His interpretation may sound logical from the facts so far at hand. He sometimes imposes it on the patient with evident satisfaction and then wonders why it has no meaning for the patient unless it happens to be a lucky guess, and the patient is not only willing but also ready to accept the doctor’s views in the matter.

Without going into too many details it was determined that several years previously this patient had attended an electrocution and had experienced nausea and disgust on smelling burning flesh, the result of a poor electrode contact. In this instance he had no deep-seated resistance against remembering the shocking incident. It was no threat to his self-respect to do so—he had merely suppressed a painful memory which he brought to light when given an opportunity to ponder a bit over his past life. The present symptoms were brought on by the smell from a tannery which he had to pass on the way to a new job. As soon as he discovered the relationship between these experiences they no longer upset him. He said, “I can take it now that I know what it is,” and he continued driving past this tannery.

Of course, we know that many others have gone through this same sort of experience without having an emotional upset of the gastro-intestinal tract. Suffice it to say that this particular individual was probably predisposed to react this way.

We all know that certain fear states accompanying tonsillectomy, automobile accidents, etc., especially in children, can persist more or less under cover, coming out at unexpected times in situations similar to the one that produced them, or quite dissimilar. But I doubt if we see many of these simple situations in our practice where symptoms are largely referable to one specific cause. Nervousness in general is usually due to a multiplicity of causes, most if not all of them obscure at the outset.

A distinguished looking middle-aged woman sought my advice with the chief complaint, “I have a feeling that people think I am dishonest. I had to resign from my work as matron of a girls’ school because of it.” The fact that this woman went around with a hang-dog look and could not carry on her work was sufficient evidence that at that time at least she was a malad-

justed person. A complete physical examination had been done by her family physician and was negative. She was strong, healthy, intelligent. The history showed in brief that she had had a very nappy married life up until her husband's untimely death five years previously. She entered the business world for a while until the girls school position opened up. I had had probably ten or twelve interviews with her before any light broke for either of us. Curiously enough, it suddenly came to both of us at the same time. What she really wanted was exactly what she had feared, she wanted to be dishonest, but a girls' school was hardly the place to entertain such thoughts. Besides, her standards were such that they did not allow her to even recognize a normal woman's desire for love except through marriage. When she did, her symptoms left her and she found a position as hostess in a high class tea room which afforded more opportunity for social contacts with people her own age. Here again there was at first a gap in our knowledge between the patient's symptom on the one hand and the history of her maladjusted behavior on the other. If I had forced an interpretation before I was sure of myself or before she had developed enough confidence in me and in herself to deal with it, her anxiety might have increased to the point of breaking off the treatment.

Incidentally, it is of interest that this woman after being free of anxiety symptoms for about two years, developed low abdominal discomfort which more and more occupied her thoughts. She was given a careful medical work-up at the New Haven Hospital. The findings were negative. I told her it was very likely that the same emotional tensions that had caused her anxiety attacks two years ago were the cause of her abdominal discomfort, that her unhappy life situation was being reflected in the present symptom. If it were taken away without changing the cause of her unhappiness, it would be expected that another symptom would take its place. I felt in so far as the present symptom was not in any way disabling, that she ought to keep on working even though serving tea to elderly ladies was not very inspiring. She not only needed the money, but idleness for a woman in her circumstances might well lead to nervous invalidism. I know now I should not have dismissed her without further psychotherapy. That summer she prevailed upon a well intentioned doctor to take out her gall bladder, which was

found to be normal. She was still in bed several months later.

Returning for a moment to the subject of when to interpret, I should like to emphasize that in my experience the interpretations of neurotic symptoms which have subsequently proven more nearly correct have been those interpretations that have, so to speak, forced themselves upon me. I sometimes work with a patient for months and then may have to admit that I cannot make head or tail out of the problem. It is then that something usually happens and the fog lifts. I believe many of these complex human problems have to simmer a long time in the minds of both doctor and patient before they become crystalized. I cannot explain it any better than this, but I am sure that each doctor here has experienced this sort of thing. One of the most difficult tasks in teaching practical psychotherapy to students is just this. They cannot seem to sit in silence and comfortably meditate on the material, whether the patient talks or not. It might be said that treatment starts when the doctor stops talking and the patient begins, that treatment flourishes when talk finally gives way to thought, and ends when thought and insight break into action.

The next group according to the outline mentioned in the beginning of the paper is the more clear cut psychoneuroses with reversible or irreversible organic disease, or with unexplained physical and other symptoms. The only difference between the classification of simple adult maladjustment and that of psychoneurosis is one of degree. Most of my patients, and I presume most of your nervous patients, do not fall into the four classical divisions—neurasthenia, hysteria, pure anxiety states, or compulsive neurosis. If they do, the symptoms are relatively advanced and strong, resistance to treatment is usually encountered, especially in the compulsory neurotics. Some indeed seem intent on frustrating the doctor at all turns in his attempt to treat them. Time does not permit in this short paper to do justice to case history presentations. Some are suffering from a profound sense of utter futility so that to arouse them from their state of complete invalidism, really a slow suicidal reaction, is a most difficult task but not impossible especially with good sanitarium care. Major hysteria and anxiety states respond much more readily and completely to treatment. In severe compulsive neuroses we see the most profound conflict situations, especially those

involving a lack of mature psycho-sexual development. These are rightly called minor psychoses. Indeed, these distressing ritualistic symptoms seem to be designed for the purpose of warding off something worse—complete panic reaction with loss of all control. The treatment of choice here is prolonged formal psycho-analysis.

It is well to recognize that the first stage of dementia praecox is often accompanied by physical symptoms not unlike the symptoms of a hypochondrical psychoneurotic. These patients are generally emotionally apathetic, indifferent, and unresponsive. They should be given institutional treatment for the underlying psychosis as early as the condition is recognized. The earlier the treatment is given, the better are the chances of improvement.

In order to touch on each of the five groupings I should mention a word about the last group entitled malingerers. Even after exhaustive study we can be fooled here, and I think we are fooled not on the basis of missing a clear cut malingerer, but because the patient is making a sick adjustment to life irrespective of the particular symptoms of malingering or he would not go to the extreme lengths he does to gain such relatively small advantage. It is my experience that such people are badly in need of friendly understanding and treatment to encourage them to see through their own rationalizations and take a broader view of the issues at stake. Among students we find that one of the common errors is to widen the concept of malingering to include those neuroses associated with somatic complaints. This erroneous concept sets up an impassable barrier to treatment.

By far the largest percentage of the nervous patients seeking the doctor's help are not classifiable into any of the types of psychoneurosis or psychosis. Most of our nervous patients present a picture of being worried, anxious, baffled and tired out with one or more physical complaints. It is surprising how many of those patients benefit by routine psychotherapy which may only mean time spent in trying to understand the person as a whole, even though the mechanisms are not clear to us and we are unable to fill in the gaps. It is common to hear a student say, "I don't see why my patient comes back to see me day after day. I'm not doing anything at all for him, and yet he does seem to be improving in spite of it all. I don't understand it." And indeed as often as not his staff man

does not know either except that treatment starts, as said above, from the moment the patient starts to talk. Listening to a patient talk himself out is of tremendous help in relieving his pent-up tension.

The busy physician can seldom take the time to study the total picture, the stresses and strains of the social and physical environment and the reasons why this particular patient is not meeting the demands of life more adequately. We all see the symptoms produced by this inadequate reaction, but to find out what is blocking the patient when he oftentimes does not know himself, takes time. The job of the busy doctor in general, it seems to me, is to point out as directly and clearly as he sees it wherein the patient is not getting along well at home, on the job, or with people, thereby getting the patient to think seriously about himself. No one is better fitted than his own family doctor to make a patient feel conscious of these problems. He may be the first one who has taken the trouble (and it is trouble) to tell the patient the truth about himself as he sees it, shocking as it may be. In a certain number of cases this is sufficient. The individual is brought to his senses and tries to correct his shortcomings. However, good results, I am sure are not achieved by a spirit of "boss-ism" over the patient by the doctor, but rather by a display of genuine interest in him as a fellow human being who is nervously sick. This might be called the direct approach.

But many people's problems are too deep-seated to be helped much in this way. Such a patient needs not only time to think these problems through with another person, but more important still, he needs courage to give up the protection and comfort that the neurosis affords him and to face those things underneath that frighten him.

But that is not all. Faith and confidence must be rekindled within him that he can meet the responsibilities of mature living more successfully than he has been able to do in the past. Perhaps psychotherapy is more of an art than a science, and because of this, it is one of the most difficult subjects to write or talk about. Perhaps for this very reason a satisfactory textbook on psychotherapy has yet to be written. Many doctors seem to have a natural gift for gaining a patient's respect and admiration, neutralizing his fears, quickly sensing a patient's hidden strengths, talents, and assets, creating such an atmosphere of security

that the patient can afford to let down his defenses and bring the painful conflicts into the open. Such doctors can inspire the patient with hope and confidence that there does lie within him the possibilities of achieving a constructive solution to his problem. This might be called the indirect approach.

Each one of us uses various modifications of these approaches in his daily practice. For the most part, however, it would seem more fitting for the busy family doctor to develop more and more skill in handling the direct approach, pointing out the present difficulties as he sees them and if this has not proved effective enough, to employ the indirect approach himself or refer the patient to some physician who has more time, inclination or aptitude to carry out the indirect or more intensive type of psychotherapy.

Some patients want the doctor to solve their problems for them, to cut quickly through their neurotic bondage of indecision, and sanction either some strictly conventional or more often unconventional mode of living in order to assuage their conflict. A very self-righteous and highly nervous young man of 25 said he had led a saintly existence until he fell into the affectionate embraces of a young widow. He came to me for advice. I told him he certainly had to do something about the situation, but if I took the responsibility on myself to choose for him, I would deprive him of the opportunity of growing up, which was far more important than the solution of any particular problem. In the first place, he had to emancipate himself from the smothering dependence upon his mother, secondly, recognize his strong, pent-up desires as natural rather than criminal, and thirdly, use his energies for the time being in building up his business and social careers. He could think of mature love later when he was out of debt to others both emotionally and financially. In other words, we doctors must be careful to recognize when a patient is using us as a permanent crutch and, when the patient's confidence in us is strong enough, we should point out to him his need for growing up and then help him with his growing pains.

To overcome a patient's strong resistance to having a complete show-down with himself, is the most difficult phase in all psychotherapy. I believe to do this effectively one must strive to maintain throughout an unbiased scientific spirit which regards a human being as an experiment of

nature rather than a person with good or bad ideas, good or bad morals, good or bad this, good or bad that. If we can free ourselves from the urge to lead others down the avenue of our own prejudices, we can mean it when we say to a patient, I respect the adjustment you have made to life; you are not satisfied with this adjustment, however, or you would not be here, but you, too, must respect this adjustment which you have made under the particular circumstances under which you have lived and grown up. It has undoubtedly served you well at some time in the past. The question you would like for me to help you solve is whether this adjustment is serving you well in the present or whether it will serve you well in the future. I presume you have no intention of giving it up unless you find something better, and that is why you have come to me. I have no intention of forcing another mode of life upon you, but I am here to help you examine all the possibilities and see what might best fulfill your needs.

To summarize then, successful psychotherapy connotes the ability to engender confidence, to allay fears by understanding their origin, to disarm resistance, to unearth conflict, to encourage growth.

DISCUSSION

W. E. Gardner: I wish to congratulate Dr. Ackerly on this splendid presentation. I am sure that nothing I shall say will add to the value of his paper. However, a few remarks might be in order. You will note that Dr. Ackerly told us what psychotherapy is without giving a stereotyped definition. He did not say that psychotherapy consists of telling the patient not to worry. I am sure most of us agree that the individual who says he never worries is either tremendously conceited or in some degree feeble-minded.

Dr. Ackerly referred to the normal individual presenting symptoms of nervousness. In this type of case psychotherapy has its most brilliant results. So much of nervousness is a perfectly normal reaction to social and economic stress; to disturbing domestic situations, or other interpersonal relationships. In such instances it has a situational basis without regressive tendencies.

Simple mal adjustment is just short of psychoneurosis, but the individual has not previously shown the neurotic pattern of behavior. The true psychoneurotic, who frequently shows a splendid response to psychotherapy, will give a history of having had throughout his life a tendency to regress to childhood patterns of behavior in times of stress. When he faces a threatening emotional situation or other exter-

nal conflict, there is at first regression; then internal conflict with his self esteem which brings about repression, or an unconscious desire to forget the unhappy experience. This produces a state of internal tension and is usually based upon a feeling of hatred or bitterness due to the frustration of some selfish desire. Hatred repressed produces an unconscious sense of guilt; repression of the guilt reaction produces anxiety; and repression of anxiety is converted into neurotic symptoms.

Anxiety in varying degrees is the essential factor in the symptom formation of all the psychoneuroses, and is transferred into numerous psychic and somatic manifestations. All of these are now believed by most psychiatrists to represent the unconscious urge of unfulfilled wishes, some of which may have even criminal trends.

If released gradually, as is true in the vast majority of all neurotics, the symptoms are benign and will disappear under good psychotherapeutic management. If pent up too long, however, and on a basis of unusually deep seated hatred, they may be suddenly released in one major explosion, sometimes in the form of homicide or other serious criminal offense. Hence the need of psychotherapy in those showing anti-social trends in childhood. It is hoped that this will be one of the functions of the new Children's Center across the street, when it is fully organized.

The statement has frequently been made that, in any psychotherapeutic procedure, what the patient tells the psychiatrist is more important than what the latter tells the patient. This is in keeping with Dr. Ackerly's convincing statement that treatment starts when the doctor stops talking and the patient begins; that treatment flourishes when talk finally gives way to thought and ends when thought and insight break into action. In other words, it is by the unburdening process that states of emotional conflict are revealed and sometimes relieved. Another statement of the essayist, with which we particularly agree, is that successful psychotherapy connotes the ability to engender confidence; to allay fears by understanding their origin; to unearth conflict and to encourage growth. By the latter he means the ability to teach the patient to make a mental and emotional adjustment on a more mature level of adaptability.

W. K. Keller: It would seem that Dr. Ackerly has attempted a very brave thing in trying to formulate succinctly what is meant by psychotherapy, but I believe that he has done a good job. It is very easy for one who is primarily interested in psychiatry to understand what is meant by the term, "psychotherapy," but it is extremely difficult to formulate this in common sense language, so that others may under-

stand what we are trying to do. It may seem platitudinous to emphasize individuation in treatment, but this again seems to be the one thing which must be borne in mind, in order to give a patient the greatest amount of good from our contact with him. As physicians, we know that what is "sauce for the goose" is not necessarily a delicacy to the gander.

It might be well to emphasize Dr. Ackerly's formulation of an unbiased, scientific attitude toward the particular experience of nature with which we are dealing, for one must realize that whatever particular adjustment the patient has made, it is quite a valid one for him under the circumstances, but we must keep this question in mind: is there not some other adjustment which will be more acceptable to the individual? We cannot, with much intellectual honesty, take away something the patient has built up, without offering something better if possible, but something which is at least as good. It is well also to remember that we are first of all physicians, and consequently do not know all the answers. This, of course, does not keep us from seeking this knowledge and constantly working with problems in mental health, an eye to prevention as well as to cure.

Dr. Foster Kennedy in his paper, entitled, *The Psychiatrist's Responsibility to the Criminally Insane and to Society*, said, "This effort of mental hygiene must not blind us to the fact that in truth, we have no knowledge regarding the nature of mind. The issue between Plato and Aristotle, between the Vitalists and the Materialists, between function and structure is not yet determined. We do not know whether the mind is a thing dwelling, as the parsons tell us, in the temple of the body or whether it is the supreme function of the body. We know for certain that it works through the body and is susceptible of change by changes in the body." "Mind, I believe myself," Dr. Kennedy says, "is to the body as the function of sight is to the eye." "An examination of mind without an examination of the body is the examination of sight without the examination of any of the apparatus for sight; and that is an investigation of visual esthetics but not an examination of sight." So indeed, there is much we do not know, but on the other hand, there are many things we do know and it is our job to apply what knowledge we have toward the amelioration of these more or less incapacitating diseases until such time as we shall be able to eliminate them entirely.

Edgar W. Stokes: Psychotherapy, as you know, means mind treatment, mental therapeutics, mind cure or cure by making mental impression or suggestion. The Greeks called it "Soul Therapy"—which I think is better because of our present knowledge, that is, the machinations of the subconscious mind.

It has been said that the majority of psychiatrists in this country are what might be called "Middle-of-the-Roaders" some knowingly and others gravitating toward this recognition of genetic, dynamic psychiatry.

American psychiatry treats all the behavior and thought and feeling of an individual as a real or actual performance, as a personality experience. The differentiation of human performances and capacities is just as much a real and dynamic phenomenon as any other fact or feature of biologic progress or social culture. It frankly recognizes and accepts the dynamics of the meaning and the significance and potency of the mental factors in pathology and therapeutics. Therefore in administering suggestive therapy whether direct or indirect, we must be first cognizant of these sequelae.

First: Correction of all Physical Defects. It should be routine practice to examine the patient thoroughly, correct all functional disorders and properly treat any functional or organic complication.

Second: Establishment of rapport between the psychiatrist and the patient. Active psychiatric treatment consists in establishment of rapport, that is, a harmonious relation, a feeling of collaboration and mutual understanding, such as will augment respect for and increase confidence in, the psychiatrist. The family physician can assist in this, if he wishes to advance the patient's progress.

It is the American practice to give the patient in simple, straightforward language the results of the preceding investigation and to make a frank statement regarding the diagnosis and the proposed psychotherapeutic procedure. This in words, appears simple but like all things that appear simple, there is something deeper and more complex and that is where only a psychiatrist that is endowed with common sense, that has had adequate experiences through constant association with those so afflicted, is capable of "Know." The "know" is when the time is apropos for such psychotherapy, and when to exercise this dynamic power in lesser or greater amounts according to individual susceptibility. Of course, any psycho-therapist exercises discretion in the administration of the psychotherapy from the time he contacts the patient, but does not evolve it into a definite pattern until he has made a thorough study of the patient by examination, both physical and mental; acquired all family knowledge and opinions and observed the patient for two weeks or more.

Even the patient's mind may not be a fertile field to yield results to psychotherapy after two weeks. From my experience in treating nervous patients, I would say about seventy-five percent

reach the stage between the tenth and twelfth week of treatment, and in speaking of nervous patients, I do not include alcoholic or drug addictions.

Alcoholic and drug patients are a separate entity that require specific psycho-therapy depending on whether alcohol or drug is the cause or that the patient with or without these has acquired a psychosis or is bordering on nervous collapse. Alcoholic and drug addictions are not responsive to psychotherapy until they undergo a change of mental attitude, begin to develop insight into their condition and appreciate their addictions with its degenerating sequelae. Whether or not these alcoholic or drug addiction cases are also suffering from a neurosis or psychosis will determine when this period of beginning intense psychotherapy is imminent. If they are only suffering from alcoholism or drug addiction without complications, then after four to six weeks treatment, active psychotherapy may be begun. If complicated, three months or longer may have to elapse before it is advisable, in order to avoid confusion and retrogressive action and fateful symptoms.

Remember, patients can be injured as well as benefited by psychotherapy treatments.

Spafford Ackerly, (in closing): I appreciate Dr. Gardner's remarks very much. As usual, he is way ahead of many of us in his thinking and feeling. His progressive thinking is illustrated in his remarks concerning the new Children's Center for the treatment of these young delinquents.

I always enjoy Dr. Keller's discussion. I expected my associate to take me apart more than he did.

Thank you, Dr. Stokes, for your remarks. No psychotherapy should be attempted, of course, until the patient is thoroughly understood physically and that often calls for consultation with the internist, surgeon and others.

Vitamin B and Nerve Deafness.—The possible relation between deficiency of vitamin B and at least some forms of nerve deafness, pointed out by Selfridge, prompted Veasey to review the literature (up to 1938) on vitamin B, from which he finds that a vitamin B deficient person may have symptoms referable to the nervous, vascular or gastrointestinal system, the endocrine glands or the organs of special sense. The author cites seven cases of impaired hearing for the treatment of which he used vitamin B. The results suggest that there is a possibility of helping some persons by this means but that at the present time there are no means of selecting the patients who may be improved.

THE ARMY MEDICAL LIBRARY OF WASHINGTON AND ITS COLLECTION OF EARLY KENTUCKIANA*

LIEUTENANT-COLONEL EDGAR ERSKINE HUME
Medical Corps, U. S. Army Librarian,
1932-1936; Assistant to the Librarian
1922-1926

First, as a Kentuckian, I thank you for the honor you have done me by inviting me to speak to the Innominate Society of Louisville. Your invitation proves to me that prophets, even minor prophets, are really not without honor in their own country. Having spent a quarter of a century in the Medical Corps of the Regular Army, I think I know, as well as anybody could, how precious are the ties to one's homeland, for in this period, I have been privileged to visit mine but seldom. I come to address you on a subject that is dear to me, for one cannot spend years in a great library without realizing that such institutions have souls and personalities, and moreover impress them on those who labor therein. Of the library of which I treat, I have had occasion to speak and write often. Of its peerless collection of Kentucky medical publications, I have had less opportunity to express myself. This is my long awaited chance.

There can hardly be a teacher of medicine, or clinician, or even a rural practitioner who is so cut off from medical literature that he has not some knowledge of the Army Medical Library of Washington, often still known by its old name, "The Library of the Surgeon General's Office." Certainly there can be no medical writing in our country, or indeed in the world,

which does not directly or indirectly owe a debt to this mighty library. It is the largest collection of books and other materials in the broad field of medical sciences that has ever existed.

That our new country could have accomplished this marvel in the space of a hundred years is one of the great achievements of American medical science. It is a thing for just pride of all our countrymen. Its growth and real development are due to the genius of one of the most protean medical men of our times, Dr. John Shaw Billings, Surgeon, United States Army. His interest grew out of his own experience in preparation of his graduation thesis at the University of Cincinnati, 1860. He became convinced, as he stated in an address delivered thirty years later at his university, of three things:

"The first was, that it involves a vast amount of time and labor to search through a thousand volumes of medical books and journals for items on a particular subject, and that the indexes of such books and journals cannot always be relied on as a guide to their contents. The second was, that there are in existence, somewhere, over 100,000 volumes of such medical books and journals, not counting pamphlets and reprints. And the third was, that while there was nowhere in the world a library which contained all medical literature, there was not in the United States any fairly good medical library, one in which a student might hope to find a large part of the literature relating to any medical subject, and that if one wished to do good bibliographical work to verify the references given by European medical writers, or to make reasonably sure that one had before him all that had been seen or done by previous observers or experimenters on a given subject, he must go to Europe and visit, not merely one, but several of the great capital cities in order to accomplish his desire."

Billings served with great distinction through the War Between the States and when that was over, was assigned to the War Department as one of the Assistants to the Surgeon General. He found the small collection of medical books begun in 1836 by Surgeon General Lovell and continued through the long term of office, twenty-five years, of that distinguished Virginian, Dr. Thomas Lawson, Surgeon General, U.S.A., which ended with his death in 1861. This collection of books was a small one indeed. Its first catalogue (1840) included only 136 titles, representing 228 volumes.

*The T. Cooke Smith Annual Address to the Innominate Society, Fendennis Club, Louisville, April 9, 1940. The Innominate Society of Louisville, founded 1926, is one of the affiliated societies of the Association of the History of Medicine. The annual address delivered before its members and guests have been: 1926: "Personal Reminiscences" by Dr. Samuel Gordon Dabney of Louisville. 1927: "Life of Woehler" by Prof. Russell Henry Chittenden of Yale. 1928: "End-results of Brain Tumor Surgery" by Dr. George Heuer of the University of Cincinnati (now of New York). 1929: "October Views of Medicine" by Dr. William Allen Pusey of the University of Chicago. 1930: "Sir Isaac Newton" by Prof. Charles Moore of the University of Cincinnati. 1931: "Prince Skotoky" by Prof. Tashira Tashira of Japan. 1932: "History of Tuberculosis" by Dr. Larson Brown of the Trudeau Clinic of Saranac, New York. 1933: "History of Fever" by Prof. Henry Barbour of Yale. 1934: "Noguchi" by Dr. Gustav Eckstein of the University of Cincinnati. 1935: "Colonial Medical Students in the Eighteenth Century and their Transatlantic Teachers" by Dr. Francis Randolph Packard of Philadelphia, Editor of the *Annals of Medical History*. 1936: "Medical Folk Lore" by Dr. Walter Clement Alvarez of the Mayo Clinic. 1937: "Laryngological Causes of the World War" by Dr. Logan Clendening of the University of Kansas. 1938: "Sir William Petty, Cromwell's Surgeon-in-Chief" by Dr. Richard Everingham Scammon, Dean of the University of Minnesota. 1939: "The Resurrectionists" by Dr. Leslie Brainerd Arey of Northwestern University. The 1941 lecture will be given by Dr. John Farquhar Fulton of Yale.



COLONEL JOHN SHAW BILLINGS (1838-1912)
Portrait by Cecelia Beaux in the Army Medical Library. It is inscribed: "John S. Billings, in Charge of Library, 1865-1895. Presented by 260 physicians of America and Great Britain." The complete list of subscribers, which contains some of the most illustrious names in modern medicine, is given in MEDICAL NEWS, Philadelphia, 1893, lxxviii, 640-641. Over his uniform Billings is wearing the gown of a D. C. L. of Oxford.

Even in 1865 the first printed catalogue showed only 2253 volumes (602 titles under eleven topical subdivisions). Billings was fired with the desire to build up this little nucleus and make it grow to a great national medical library.

In 1868 the sum of \$80,000 left over from U. S. Army hospital funds, was turned over to Billings by far-sighted Surgeon-General Barnes, and he began his great work of collecting and cataloguing medical literature. In 1871 he got out his first catalogue. It appeared in 1872 (454 pages with a supplement of twenty-six pages). A three-volume catalogue, each volume of the approximate size of those of the present Index Catalogue, appeared in 1873-1874. These works were lists only, not comparable to the later publication.

The catalogue of 1871 is introduced by the following memorandum:

"That there is need in this country of a medical library of this character is sufficiently evident from the fact that, in all the public medical libraries of the United States put together, it would not be possible to verify, from the original authorities, the references given by the standard English or German authorities, such as Hennen, Reynolds, or Virchow. No complete collection of American medical literature is in existence; and the most complete, if in this country, is in private hands, and not accessible to the public, while every year adds to the difficulty of forming such a collection as the Government should possess."

Billings envisaged something more than a mere list of the books in the library of which he had charge, for "all is not bibliography that pretends to be such." "Books," he said, "are properly compared to tools of which the index is the handle." He contemplated the most mighty piece of bibliography ever undertaken in medical science or in any other field. He considered that the profession of medicine was entitled to a catalogue in which, under both authors and subjects, the literature of the world could be found. He wanted the ideas of the leaders of scientific thought in every land, so, in 1876, he published a *Specimen Fasciculus of a Catalogue of the National Medical Library, under the Direction of the Surgeon-General, United States Army*. This he submitted to the medical profession for criticisms and suggestions. Its style and arrangement were practically those of the present Index Catalogue, differing only in certain typographical details.

From 1876 on, Billings continued the preparation of the prospective Index Catalogue. At length in 1880, partly through the good offices of Dr. Abraham Jacobi, Congress made the appropriation for printing it.

The matter of typography and general arrangement of the contents having been settled in the *Specimen Fasciculus*, the main question was that of classification. "Following the general idea of a subject and author catalogue arranged in dictionary order in a single alphabet, the special subjects were featured by means of key titles or rubrics. After settling upon the main grand divisions, such as Aneurism, Cancer, Tumors, etc., and subdividing these, the subjects of lesser weight easily fell into

their place by the simple device of finding the centers of gravity of the title in each case." (Garrison). Dr. Billings saw clearly that he could not prepare a complete bibliography on his subject, but rather a bibliographical conspectus of the contents of a great library. Happily this proved so complete that it became, for practical use, a working bibliography of medicine. Modern medical science was even then beginning to advance by leaps and bounds, its surface aspect constantly changing as it advanced so that he saw at once that it would be impossible to adopt any arbitrary and fixed classification based on a definite scheme of nosology. Any such scheme would have been, like the average medical textbook of today, obsolete within a few years.

The appearance of the Index Catalogue marked an epoch in the development and improvement of medical literature, particularly in the United States. Editors of medical journals, chiefs of clinics and laboratories, and physicians writing upon all branches of medicine, who formerly had to obtain historical, statistical and other data in a most haphazard way, now had their materials ready to hand in the most convenient and accessible form possible, that is, the strictly alphabetical. The Index Catalogue has no equal. "Its preparation," said Osler, "is Gargantuan." In no other field of knowledge is there a work comparable to this, the world's standard of medical bibliography.

Billings used to say: "The Catalogue is a tool that must be used for a time before you can judge of its merits." Certainly it has been used to that point. Years ago Osler told of how worn and bethumbed were the

volumes of the Index Catalogue in foreign medical libraries, and I have myself seen the same condition recently in a dozen or so countries. The Catalogue as a working tool is in constant use in Tokyo, Stockholm, Buenos Aires and way points. In his Schorstein Memorial Lecture delivered at the London Hospital on October 17, 1935, Professor William Bulloch, F. R. S., said: "Among catalogues the Surgeon-General's is regarded by the authorities at the British Museum as the greatest ever achieved. It has the great virtue of being a subject index, unlike that of the British Museum, which is a name index only. The story of its construction is not as well known as it ought to be." (B. M. J., October 26, 1935).

Let us digress for a little and look at Billings's distinguished career as a whole. He was uniformly successful. Not only was he the real father of the Army Medical Library and its mighty catalogue, "Billings's float down to posterity," as Osler called it, but he designed and supervised the building of the Johns Hopkins Hospital; he selected many of the first Johns Hopkins medical faculty, including such men as Osler and Welch; he had charge of the vital and social statistics of the Tenth and Eleventh Censuses of the United States; his analysis and report had much to do with the transformation of the old Marine Hospital Service to the splendid modern United States Public Health Service; he was Professor of Hygiene at the University of Pennsylvania; he consolidated the three public libraries of New York City and catalogued each, becoming librarian when the present well-known building was completed. Billings is without question one of



THE ARMY MEDICAL LIBRARY AND MUSEUM, WASHINGTON
Building erected in 1887, and now inadequate to house the two great collections of books and exhibits. A new building has been authorized by Congress.

America's greatest physicians.

Billings retired from the Army in 1895 to assume the direction of the New York Public Library, but before doing, he had, with his unerring judgment of men, selected his successor. This was that great Virginian, Major Walter Reed of the Army Medical Corps. Dr. Reed was just completing his epoch-making studies of the relationship of the mosquito to yellow fever, so that he was not available to serve at that time at the Army Medical Library. Seven years later, however, (1902) he was made Librarian and thus attained "the highest ambition of his life," as he expressed it to Dr. Garrison (Billings-Memoir, 179n). He held the office but a single week for his career was cut short by his untimely death at the age of fifty-one from a ruptured gangrenous appendix.

Billings was followed as Librarian by Colonel David Low Huntington, and he by Surgeon James Cushing Merrill, both of Massachusetts. They held office respectively 1896-1897 and 1898-1902. After Major Walter Reed's death, the office of Librarian passed to Brigadier-General Calvin DeWitt of Pennsylvania, sometime Commandant of the Army Medical School and Curator of the Army Medical Museum, the sister institution of the Library. He was the father of Brigadier-General Wallace DeWitt, lately Commandant of the Army Medical Center, Washington, and of Lieutenant-General John Lesesne DeWitt, U. S. Army. General DeWitt was Librarian, 1903-1904.

He was succeeded by a brilliant Virginian, Dr. Walter Drew McCaw, one of the outstanding military surgeons of the modern period. He served for ten years as Librarian and during the World War was Chief Surgeon of the American Expeditionary Forces. Thereafter he was the Commandant of the Army Medical School.

With Colonel Billings's retirement at the completion of the First Series of the Index Catalogue, the work of editing a Second Series fell on his successors. It was begun in 1896 under the careful redaction of Dr. Robert Fletcher, long Billings's close associate at the Library. Fletcher continued his work up to his death in 1912 in his ninetieth year. The Second Series was completed four years later, and from 1918 to 1932 the Third Series was published. The plan of the work has remained unchanged, except that in 1926, Vol. VI, Second Series, when it seemed that what Army officers call "the exigencies of the service," might require that the Index Catalogue be replaced by a

year book, material published prior to 1926 was withheld from the Catalogue in order quickly to finish the Third Series. Fortunately the wisdom of continuing the old plan was seen, and the material that was for six years omitted is now being incorporated into the Fourth Series, the first volume of which appeared in 1936.

The Index Catalogue is one of the most easily used working tools that a librarian can have. For example, in order to find the literature of, say, fractures of the clavicle, one simply refers to the C volume of the First Series of the Catalogue where under *Clavicle, Fractures* of, there are listed first the books, then the theses and finally the articles in the medical journals of the world—all that had been collected on this topic from the early days down to the date when this particular volume of the First Series went to press: 1882. Next, in the C volume of the Second Series, the material on this subject that was indexed between 1882 and 1898, the date of its printing, would be found. Similarly in the C volume of the Third Series the material from 1898 to 1922 would be recorded, 1922 being the date that this volume of the Catalogue went to press. For material since 1922 the card index of the Library is available. Moreover, by taking the annual volumes of the Index Medicus from 1922 to date, the bulk of the remaining medical literature on our selected topic would be found, though the Army Medical Library indexes considerably more material than does the Quarterly Cumulative Index Medicus. How simple, yet how often does the Library receive letters asking how the literature on any subject may be "looked up."

Garrison, himself one day to become assistant librarian, told of a conversation with the then holder of that office, Dr. Robert Fletcher. In his whimsical way, Fletcher "likened the Index Catalogue to a vast metropolitan hotel containing story after story of rooms and suites of rooms of all sizes and prices, adapted to the tenants of every degree of income and worldly place. In such a caravansary, some subjects like Labour, Surgery, Water Supply, etc., are old wealthy patrons having a permanent claim upon apartments of vast extent, occupying an entire floor. Others, such as Acupuncture, Amulets, Animism, are on such a slender financial footing that they must put up with hall bedrooms or be 'cabinéd, cribbed, confined' in the attic. Others, such as Arteriosclerosis, Bacteriology, Parasitology, Pellagra, Poliomyelitis, were

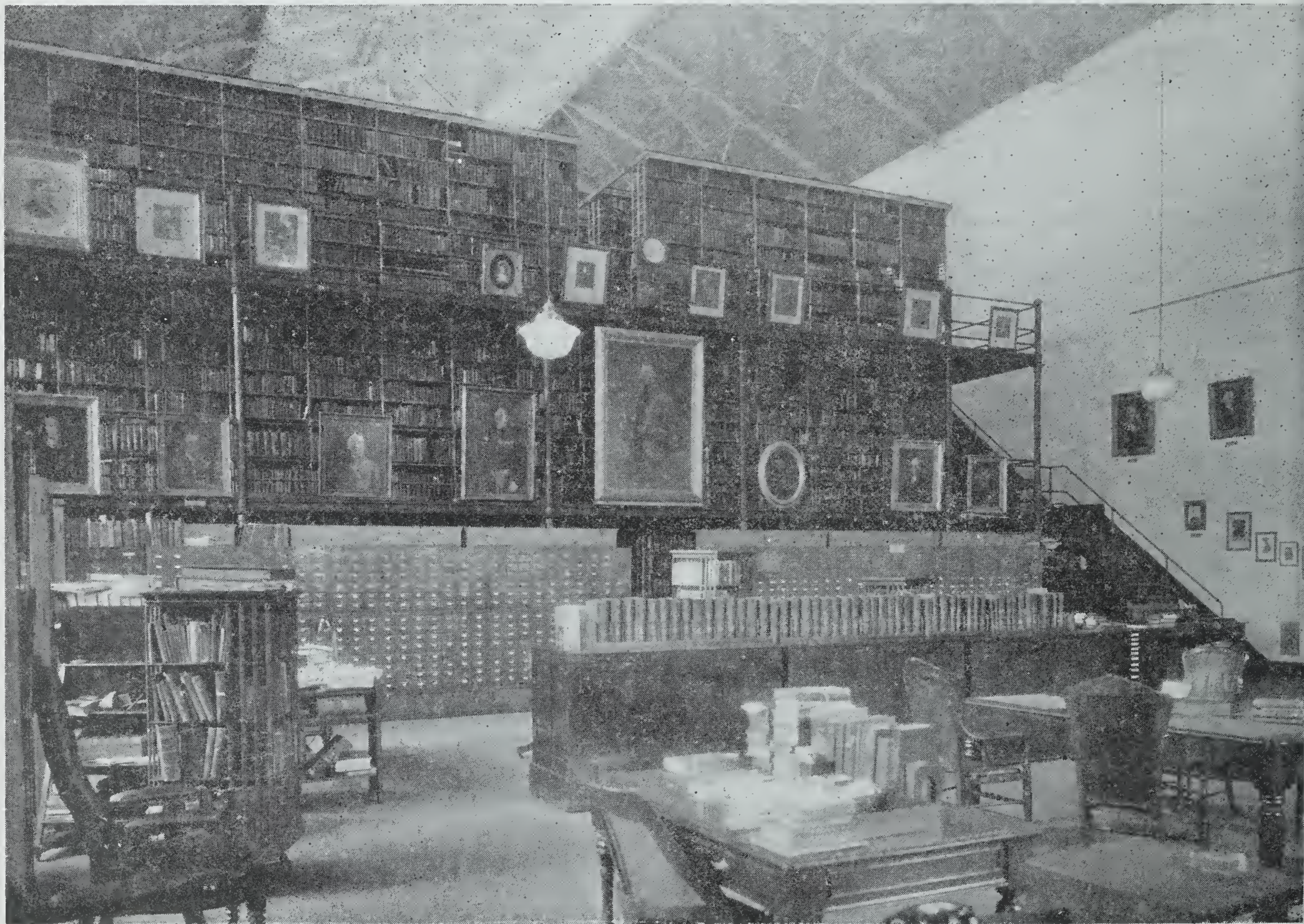
once poor and needy, but, having come up in the world, acquire extensive suites, with rooms perchance for even maid and courier. Others, such as many modern drugs, diagnostic tests and surgical procedures are bounders and get-rich-quick parvenus, who exhaust their substance in vain and vulgar show, fading away as soon as their credit is gone." Dr. Fletcher's picture is still a true one, and the librarian and editor of the Index Catalogue must still seek, like mine host of a large hotel, to accommodate the guests in apartments of the proper size and position, though not without a careful eye on the guest's probable ability to pay his reckoning.

Billings once said that a librarian is in one respect only a sort of hod-carrier, "who brings together the bricks made by one set of men in order that another set of men may build therewith—but he is apt to take quite as much pride and satisfaction in the resulting structure, provided it be a good

one, as if he built it himself." Thus does he differ, I may add, from the hodcarrier of the ancient Irish story, who felt that all he had to do was to carry the bricks to the top of the wall and the man there would do all the work.

The task of indexing for the Catalogue the periodical medical literature that is received at the Army Medical Library is enormous. The Library receives about 2000 medical journals and indexes *every* worthwhile article, in *every* issue of *every* journal of almost *every* country and in almost *every* civilized language. Books, theses, pamphlets, documents are similarly indexed. Dr. Fletcher once exclaimed that the whole world was in conspiracy against medical bibliography. As Professor Bulloch recently said in England, "Presently the population not actually engaged in writing would be employed in indexing and cataloguing."

The publication of the Index Catalogue is



LIBRARY HALL, ARMY MEDICAL LIBRARY

an expensive affair, though it is generally admitted that it has been done with the minimum of cost. The thousand copies of each volume cost between eighteen and nineteen thousand dollars merely to print. The work of preparation costs something more than \$14,000, so that the cost of each completed copy is about \$32 or \$33. The Government Printing Office, where the law requires this work, as all Government printing, to be done, has stated repeatedly that the Index Catalogue is its most difficult bit of printing. The text is all set by the monotype machine, an efficient but not simple apparatus, in the use of which the operator cannot see what he is writing and cannot at that time correct errors. The general reduction of the War Department funds following the depression made it impossible to issue the usual annual volumes of the Index Catalogue for 1933, 1934 and 1935. However, after the appearance of the volume now in preparation, two volumes a year are anticipated until the three missing numbers have been made up. So once more the sun shines, bibliographically speaking.

In 1879, Billings established another monumental work, the Index Medicus, a monthly classified record of the current medical literature of the world.

The Index Medicus consisted from the start of a carefully printed monthly fasciculus, giving the medical literature of the preceding month, carefully arranged as to subject-rubrics. The classification, as covering a smaller body of material, is the more general and less subdivided than that of the Index Catalogue, the scheme of nomenclature and nosology being, as the editors stated, essentially that adopted by the Royal College of Physicians of London, "based upon Dr. Farr's well-known system." In the early issues of the Index Medicus a special page of medical "Notes and Queries" was included, consisting of questions and answers bearing upon rare books and editions and other matters of medical bibliography and history. At the end of each volume of twelve numbers an annual author and subject index of the whole material was prepared, the subject index being minutely subdivided, forming in respect to classification a sort of annual Index Catalogue in miniature.

Never a Government publication, the Index Medicus had hard financial sailing from the start. It was expensive to publish and though of the greatest use, the number of its subscribers was necessarily

limited, being chiefly medical libraries. From January, 1879 (Volume I) to April, 1899 (Volume XXI) it was published successively in New York, Detroit, Boston and Washington. Then came the time when its founders could no longer afford to continue it. In vain did Osler plead before a meeting of the American Medical Association that physicians subscribe. *Bibliographia Medica*, under the redaction of M. Charles Richet and Marcel Baudouin, was issued in Paris as a replacement for the *Index Medicus*, from 1900 to 1902, three volumes having been published. In 1903 the Carnegie Institution of Washington took over the *Index Medicus*, and the second series edited by Drs. Fletcher and Garrison ran from 1903 to 1920, eighteen volumes in all. In 1921 the third series began and continued until 1927 when the *Index Medicus* was merged with the *Quarterly Cumulative Index* (founded 1916) of the American Medical Association. The combined periodical, the *Quarterly Cumulative Index Medicus*, was published under the joint direction of the Army Medical Library and the American Medical Association until December, 1931, when its connection with the Library ceased, and it became solely a journal of the Association.

In 1914 Professor Adami of McGill, writing of the Index Catalogue and Index Medicus, said: "It is difficult to realize what service those two publications have been to science the world over, or what has been the influence also to medicine the world over of existence of the marvelously progressive Library of the Surgeon-General's Office, and its service in bibliographical search. . . [It is] regarded everywhere as the model medical library . . . I would go so far as to say the outstanding service to medicine by the United States has been this Library with its publications." (*Bul. Med. Libr. Assn.*, III, 56).

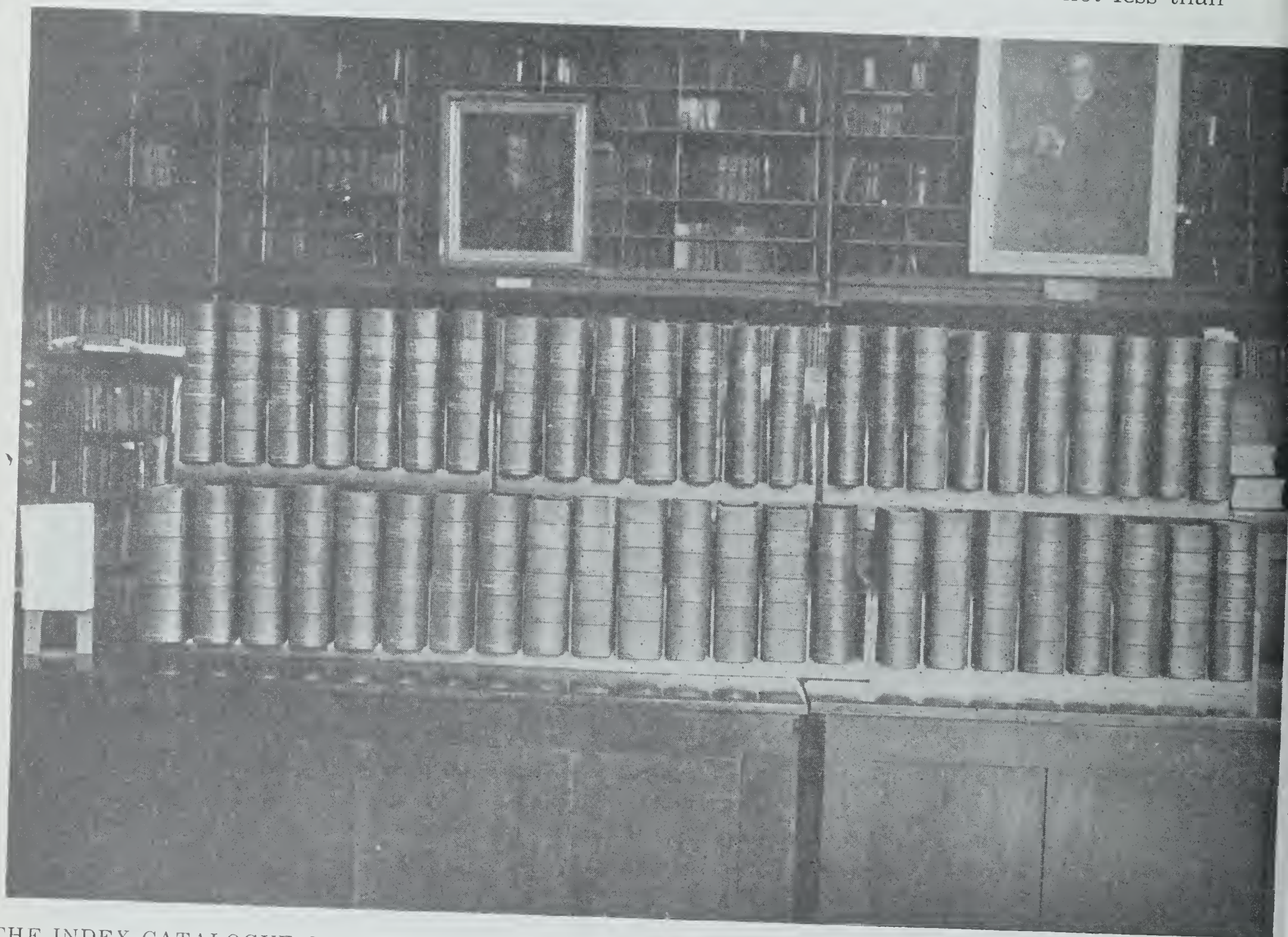
The Army Medical Library was without its own building until 1887, its collections being therefore stored in Ford's Theatre, Washington, the melancholy scene of President Lincoln's assassination, and later used by the War Department as a store house. In 1887 the present building at Seventh Street and Independence Avenue (formerly B Street), Southwest, was completed. For nigh half a century it was sufficient for the rapidly growing collections of books and other material. But libraries, particularly rapidly expanding ones, have, as we all know a way of outgrowing their quarters if there be no facilities for exten-

sion. This has happened to the Army Medical Library during the half century that it has occupied the well-known red brick building next to the old National Museum in Washington. The stacks are so full that the engineers have directed that no increase in weight be permitted. Thus books have to be withdrawn when others are added. The overflow now crowds the basement and indeed every nook and corner in the building. That a new building must be provided is obvious. Moreover, as the present building has been marked for demolition as a part of the general plans for the public parks of the National Capital, another site must be used.

In 1939 Congress passed an Act authorizing the expenditure of \$3,200,000 for a new building to be erected at a site selected by the President. It is understood that the new building will be located somewhere in the area known as the Mall, that is be-

tween the Capital and Washington's Monument. The funds for the building have not yet been appropriated, but it is hoped that they will not be withheld much longer for the saturation point at the present building is almost within sight.

Billings used to estimate that about one-thirtieth of the world's literature was medical and gave figures to prove it. There is no reason to think that the ratio has changed since Billings's time. If this figure be accepted, it is interesting to compare the size of the collection of the Army Medical Library with the country's largest general collection of books, the Library of Congress, which, incidentally, is now larger than the collection of either the British Museum or the Bibliotheque Nationale, Paris. The report for 1934 shows that the Library of Congress had 4,805,646 volumes. The Army Medical Library would, to maintain Billings's ratio, have to include not less than



THE INDEX CATALOGUE OF SOME FIFTY VOLUMES CONTRASTED WITH THE PAMPHLET CATALOGUE OF 1865 (at left)
Taken together they form Billings's most eloquent memorial.

160,188 volumes. As a matter of fact it contains 941,181 volumes or about six times what it would be expected to have to be compared with the Library of Congress. The difference in expenditures is also striking. The Army Medical Library has about nineteen per cent as many volumes as the Library of Congress but receives only about nine and one-eighth per cent of the annual appropriation for purchases.

Of rare medical books the Army Medical Library has a magnificent collection. Books printed before 1500 are known as *incunabula*, from the Latin word for cradle, as printing was then in its infancy. Some six hundred medical incunabula are known, and of this number the Army Medical Library has no less than four-hundred and fifty, the largest number to be found in any library in the New World, and a collection that stands comparison with that of any library in the Old World. Of some works the Army Medical Library has the only known copy, and of rare books published after 1500, the collection is one of the best. The same is true of early medical manuscripts, of which the Library possesses one-hundred and fifty

The oldest publication possessed by the Army Medical Library is Johannes Gerson's *De pollutione nocturna* printed in Cologne in 1467, the only copy in the United States. Another very old book, though less rare as there are other copies in this country, is *Speculum humanæ vitæ* by Rodericus Zamorensis, printed in Rome in 1468.

Among early writing on plague, the Library has Valecus de Taranta's *De epidemia*, Basel, 1470, and Alcanis Luis's *Regimen pestilentiae*, printed at Valencia about 1490. The Library has also a perfect copy of the first printed book on pediatrics, Bagellardo's *De infantium ægri tudinibus*, Padua, 1472, a sort of compendium of practice of the time in which it was written. The only other copy in America is in the Pierrepont Morgan collection.

Many of these incunabula are first editions. *De medicinis universlibus* by the Arabian physician Mesue the younger, printed in Venice in 1471, is the first purely medical book ever printed in the world. Another Arabian physician, Abulqasim, printed in the same place and year. Both authors were very famous during the Middle Ages, and their works served as texts for medical students. Both volumes are the only known copies in the United States. In America, Ibn Sina's *Canon*, print-

ed in Padua in 1479, is found only in the Army Medical Library. Our Latin *Galen*, published by Pinzins in Venice in 1490, is also a first edition, and, though it is an incomplete copy, it is often photographed on account of its rarity.

Of the very early publications on the "*mala de Franzos*," the Library possesses Joseph Gruenpeck's Latin treatise, *De pestilentiali scorra*, first published in 1846, a work of great contemporary popularity. This edition, printed in Cologne, is exceedingly rare, copies being known in but five other libraries of the world, Munich, Hamburg, Copenhagen, London and Philadelphia. Torrella's two works on syphilis, both very great rarities, are in the Library. The earlier of the two, *Tractatus cum consiliis contra pudendagrath* of 1847 is undoubtedly, says Sudhoff, the most valuable of the early works on this disease. There are only three other copies in the world, one being incomplete. The later work, printed in Rome in 1500, *Dialogus de dolore*, etc., is likewise very rare and mostly known in its reprints.

Some of the early works are represented in the Army Medical Library by several successive editions. Thus the Library has seven editions of Saliceto's surgery, eight editions of Henricus de Saxonia's popular work, *On the Secrets of Women*, formerly attributed to Albertus Magnus, and eight editions of the *Regimen sanitatis* of Taddeo of Florence. All of these editions are incunabula.

These books are mainly of the sort which are now very difficult to acquire. They are not all equally important but taken as a whole, the collection is admirably and concisely representative not only of early medical knowledge, but also of fifteenth century typography.

Space does not permit even a hasty consideration of the other treasures of the Library. It contains, for example, a more complete file of French theses than the Library of the Medical Faculty of Paris. Its collection of authors' presentation copies of important works shows the autographs of such figures as Lord Lister, Pettenkofer, Pasteur, Ehrlich, Virchow, Cohnheim, Paget, Koch, to mention a few of the Europeans who have lived but recently.

Now for some information of early Kentuckiana in the Library collection. Not even the rich Library of Transylvania University in Lexington has more. We naturally think first of Dr. Ephraim McDowell

(1771-1830), the Father of Ovariectomy. Though he performed his famous operation in Danville in 1806, he waited until 1816 before publishing an account of it, though he sent a copy of it to old preceptor, John Bell of Edinburgh, but it never reached him. Fortunately another copy was published in the *Eclectic Repertory and Analytical Review* of Philadelphia for October, 1816 under the title, "Three Cases of Extirpation of Diseased Ovaria," a paper which Robinson says conferred immortality on this journal. This is all that McDowell is known to have published for his was a hand that held the scalpel more skillfully than the pen.

The Army Medical Library as the national medical library of our country, regards with affection its elder sisters, the famous Medical Library of Transylvania University in Lexington. Not for nothing has the Kentucky medical profession been proud for a century and a half of this splendid old collection. It has played a great role in medical education, and though no longer collecting medical books, remains a rich repository of medical gems whose lustre is no less brilliant today than when placed on the shelves by loving hands lang syne. By a happy arrangement reproductions of rareties of the Transylvania Library which are not likewise in the Army Medical Library's collection, can be had for the use of the latter institution.

The library in Washington contains practically all of the known publications of the great men who made Transylvania University a medical school rivaling the best in the country. Some of these are: Samuel Brown (1769-1830), Frederick Ridgely (1756-1824), Benjamin Winslow Dudley (1785-1870), William Hall Richardson (d. 1846), Charles Caldwell (1772-1853), Lunsford Pitts Yandell (1805-1876), David Wendel Yandell (1826-1898), his son, Daniel Drake (1785-1852), Charles Wilkins Short (1794-1863), John Esten Cooke (1783-1853), John Eberle (1787-1838), Natah Ryno Smith (1797-1877), James Conquest Cross (1798-1855), Robert Peter (1805-1897), Thomas Duche Mitchell (1791-1865), James Mills Bush (1805-1875), Constantine Samuel Rafinesque (1783-1840).

The Army Medical Library is equally rich in material relating to the early days of the University of Louisville and its founders. When as Dr. Yandell said, Louisville replaced Lexington as the metropolis of Kentucky and the former city had a hospital while the latter did not, then it

became necessary for Louisville to replace Lexington as the center of medical training. Moreover there were dissensions within the Transylvania faculty. In 1837 Louisville chartered the Louisville Medical Institute from which the great University of Louisville that we know today has evolved.* It was not a direct successor of Transylvania, though in effect it became such, for Transylvania closed some twenty years thereafter.

The following was the first faculty of the Louisville Medical Institute.

Dr. Charles Caldwell, Professor of the Institutes of Medicine.

Dr. John Esten Cooke, Professor of Theory and Practice of Medicine.

Dr. Lunsford Pitts Yandell, Professor of Chemistry.

Dr. Henry Miller, Professor of Obstetrics.

Dr. Jedediah Cobb, Professor of Anatomy.

Dr. Joshua Barker Flint, Professor of Surgery (succeeded in 1839 by Dr. Samuel David Gross).

There is no time to tell you in detail of the publications of these pioneer medical teachers of Louisville, but I can say that most of them wrote extensively, and most of their writings are in the Army Medical Library's collection. I have given some details of their literary efforts in my *Early Kentucky Medical Literature*, published in the *Annals of Medical History* and also in the *Kentucky Medical Journal*, both for 1936.

Perhaps the most striking collection of Kentucky medical publications is the almost complete set to date of the fifty-two medical journals that have been published in Kentucky. The first was *The Transylvania Journal of Medicine and the Associated Sciences*, edited by Drs. John Esten Cooke and Charles Wilkins Short. The first issue appeared in February, 1828, being printed in Lexington. The second was *The Western Journal of Medicine and Physical Sciences*, edited by Dr. Daniel Drake. It began in 1827 and while not published in Kentucky, it has a connection with our State because in 1840 it was consolidated with

*In this city of all places it cannot be out of place for me to note with pride a strong sentimental attachment to the University of Louisville. My father, the late Dr. Enoch Taylor Hume, of my native Frankfort, graduated here in 1869. His brother, Dr. Lewis Nicholas Hume, graduated in 1874. My maternal uncle, Dr. John Glover South, received his M.D. here in 1897. My father's uncle, Dr. Joseph Hume, graduated here in 1857, and his two sons, Dr. Joseph Hume, Jr., and Dr. Waverly McGee Hume, followed him in 1880 and 1882 respectively, while my father's grand-uncle, Dr. Joseph Hume, was associated with the University in its early days. These members of my family studied with some of the illustrious men herein mentioned.

The Louisville Journal of Medicine and Surgery, to form *The Western Journal of Medicine and Surgery*. The Louisville journal was itself founded in 1838 being the first medical journal of this city.

But to return to the Army Medical Library. With Billings's retirement from the Army in 1895 the management and administration of the great collection, the selection and purchase of books, the choice of material for indexing, the enlargement and improvement of its resources, passed into the hands of the Army medical officers who succeeded Billings. As the cantors of the Thomasschule at Leipzig, the successors of Bach, had to be men learned in counterpoint, worthy followers of the great seventeenth century music master, so these Army surgeons have been men specially selected for their scientific and literary attainments. The following is the complete list of Librarians with dates of their service.

1. Colonel John Shaw Billings, of Indiana, 1868-1895.

2. Colonel David Low Huntington of Massachusetts, 1896-1897.

3. Surgeon James Cushing Merrill of Massachusetts, 1898-1902.

4. Major Walter Reed of Virginia, 1902.

5. Brigadier-General Calvin DeWitt of Pennsylvania, 1903-1904.

6. Brigadier-General Walter Drew McCaw of Virginia, 1903-1913.

7. Colonel Champe Carter McCulloch, Jr., of Texas 1913-1918.

8. Brigadier-General Francis Anderson Winter of Louisiana, 1918-1919.

9. Colonel Paul Frederick Straub of Iowa, 1919.

10. Major-General Robert Ernest Noble of Alabama, 1919-1924.

11. Colonel James Matthew Phalen of Illinois, 1924-1927.

12. Colonel Percy Moreau Ashburn of Ohio, 1927-1932.

13. Lieutenant-Colonel Edgar Erskine Hume of Kentucky, 1932-1936.

14. Colonel Harold Wellington Jones of Massachusetts, 1936 to date.

In Billings's address, the best he ever wrote, delivered in 1861 before the International Medical Congress in London, he said: "If the entire medical literature of the world, with the exception of that which is collected in the United States, were now to be destroyed nearly all of it that is valuable could be reproduced without difficulty." The importance of the Army Medical Library, then in its infancy, could

hardly have been better expressed. It has grown steadily and greatly, realizing the hopes and dreams of generations, as if in the words of Goethe's Chorus Mysticus, the unattainable had at length become a reality.

Perhaps I cannot better sum up the opinion of the medical profession as to the worth of the Army Medical Library than by relating an incident. Not long before his last illness, Dr. William H. Welch paid a visit to the Army Medical Library, or the Library of the Surgeon General's Office, as it was always known prior to 1922. Dr. Welch was one of the Library's most earnest readers and on many an occasion his advice had been of the utmost help. As he sat in the Librarian's office smoking one of his black cigars, he fell into one of those reminiscent moods which his friends so enjoyed. He spoke of the foundation of this library, of its growth, of the place it had made for itself in the world of medical science, and then said: "I have been asked on more than one occasion what have been the really great contributions of this country to medical knowledge. I have given the subject some thought and think that four should be named. 1. The discovery of anæsthesia; 2. The discovery of insect transmission of disease; 3. The development of the modern public health laboratory, in all that the term implies; 4. The Army Medical Library and its Index Catalogue, and [he added slowly] this library and its catalogue are the most important of the four."

Dr. Welch was not one to speak lightly or without due thought. The librarian was so struck with this pronouncement that he reduced it to writing immediately after the doctor had left. To me now it is no less forceful than it was then. Perhaps these words were among the wisest uttered by that wise man.

No Criminal Type—There are no physical criteria for distinguishing the potential criminal in the American population, despite Dr. Hooton of Harvard. Thus insists Dr. Hrdlicka, Curator of physical anthropology of the Smithsonian Institution, on the basis of his own long efforts to find a "criminal type." Dr. Hrdlicka bases his conclusions on his own measurement of 1,000 prisoners of both sexes from 5 to 16 years of age. Physical measurements of the actual criminal, he holds, can show only that he tends to be abnormal. There is no possibility of connecting abnormality with criminality.

A REVIEW OF ACUTE AND CHRONIC ARTHRITIS

THOMAS AUGUSTUS GRIFFITH, M. D.

Mt. Vernon

Two million Americans, it may be conservatively estimated, are afflicted with acute and chronic arthritis. Not more than fifteen percent of this number, in all probability are under medical supervision. This alarming fact has led me to review Arthritis and to present it to you in some detail. It may be recommended to read only one type at each sitting.

Arthritis is divided into proliferative and degenerative. This is a division on the basis of pathology. It also can be classified as infectious and non-infectious.

Rheumatic fever is an acute polyarticular arthritis with painful swollen joints which are involved in a migratory fashion. It commonly follows a throat infection in fifteen to twenty days which may be a catarrhal or lacunar angina or a laryngitis. It is not known whether the joint reaction is due to the infection or to an allergic response to it. It does not follow every respiratory infection as is well known. Continued damp and cold weather, washing and scrubbing, damp unhealthy housing conditions predispose to this disease. Clinicians speak of rheumatic tonsils and rheumatic throats. Possibly we should also speak of rheumatic families. Involvement of the throat, heart, pleurae, joints, skin, arteries and nervous system occurs. In the heart there may occur an endocarditis in fifty percent of the cases, a myocarditis in seventy-five to ninety percent of the cases and occasionally a pericarditis. In this respect, it is interesting that the sedimentation rate of the red blood cells is an excellent index of the activity of a rheumatic carditis.

Rarely, there may be a pancarditis or involvement of all three layers. The pleural coverings are involved in fifteen percent of the cases in the Eastern states. Chorea, or St. Vitus dance, is a part of rheumatic fever. By that I mean that chorea fairly often follows an attack of acute polyarthritis, that a child who has had several attacks of chorea may eventually develop rheumatic heart disease or a child with an active attack of chorea may at the same time have evidence of acute carditis. Fever therapy by gradually increased doses of typhoid vaccine, intravenously, is the most satis-

factory form of treatment of chorea.

In acute rheumatism there is an outpouring of serum around and into the joint which distends so that if the knee is involved, for instance, the patella may float. There is also an outpouring of serum by the synovial membrane. The articular cartilage may be partly absorbed but there is no destruction of this cartilage. There is no ankylosis in rheumatic fever. Involvement is usually of the large joints, uncommonly do we see the sterno-clavicular, temperomandibular, and small joints of the hand involved. The joints of the lower extremity are involved first, as a rule. It is said, however, that it is almost impossible to differentiate the type of arthritis by the mode of joint involvement. In this arthritis, the temperature is usually 101-102 degrees, or it may go up to 104 degrees. There is rather profuse sweating. Usually when the process leaves a joint, it does not return and it is characteristic for a joint to clear and then another to become involved. Usually a joint is inflamed four to five days and the entire process is over in fourteen to nineteen days. Failure of subsidence of acute symptoms in a single joint leads one to suspect gonorrheal arthritis, especially if localizing in the knee. The pain of gonorrheal arthritis is unrelieved by large doses of salicylates, by way of differentiation.

Acute articular rheumatism may be accompanied by purpuric phenomena; also allergic purpura may be accompanied by arthritis; this is not true purpura hemorrhagica. Hemophilia may be accompanied by acute joint effusion and subsequently by chronic arthritis. It may also be mentioned that pernicious anemia may be accompanied by arthritis.

Rheumatic fever in children may be a different thing. There may be only general malaise, nose bleed, a slight temperature and muscle pains. These cases are undoubtedly often mistaken for influenza.

The treatment of acute rheumatic fever is rest in bed, forcing of fluids, base-forming diet, aspirin or salicylates in large doses for pain along with heat and immobilization of involved joints as much as possible. In case of no relief by the salicylates, neo-cinchophen is indicated. It should not be rejected because of an occasional liver damage. Wasson, V. Am. Heart J. 15;257, 1938, states that of 34 children with rheumatic fever, only 5.9 percent developed the disease in the acute phase during treatment with a filtrate of streptococcus hemolyti-

cus, while two control groups of 34 children each showed 15 percent and 43.4 percent respectively. In the Handbook of Therapeutics for 1938, it is said that sulfanilamide has no use in rheumatic fever. From these reports, it can readily be seen that the etiology of rheumatic fever is not yet definite.

The pathology of proliferative arthritis, as already mentioned in discussing rheumatic fever, is an outpouring of serum. In the latter the serum passes away without scarring, while in rheumatoid arthritis, there is scarring and the joints suffer acute, subacute, and chronic reactions with a proliferation of fibrous tissue. The synovial capsule is thickened. Later the cartilage is involved, with absorption, erosion, and finally fibrosis. On X-ray there will also be seen a rarefaction of bone. The soft tissues above the joint atrophy. Thus rheumatoid arthritis is also called atrophic. In pneumococcic and typhoid joint reaction, we have much the same pathology as well as in gonorrheal arthritis. Arthritis associated with subacute bacterial endocarditis is also proliferative. This endocarditis is to be differentiated from rheumatic endocarditis. In subacute bacterial endocarditis, we will sooner or later find petechiae of the skin, mucous membrane, retinae, or conjunctivae. Occasionally the hemorrhagic spots are larger and are called ecchymoses. The etiologic agent, the streptococcus viridans, is cultured from the blood occasionally after repeatedly obtaining specimens and submitting them for culture. In rheumatoid arthritis, we have a course in the early stages much like that of rheumatic fever, but it is not associated with laryngitis and pharyngitis but with a focus of infection. Before discussing some of the phases of foci or infection, I would like to say that in some cases of rheumatic heart disease there is a previous history of iritis which is thought to be a "rheumatic iritis."

Rheumatic iritis is frequently an acute, usually unilateral, painful relapsing condition associated usually with long standing rheumatism. The focus giving rise to the rheumatoid type is teeth in people around the age of thirty-five and tonsils around thirty or younger. When these foci are removed, the patient may improve. Small joints are usually involved in the rheumatoid type. The differentiating point between this type and acute articular rheumatism (rheumatic fever) is the tendency to ankylosis in the former. In the degenerative type which we shall discuss later,

there is sometimes a false type of ankylosis due to bony spur formation. Chronic atrophic rheumatoid arthritis is often a malignant disease, all too often resulting in a "wheel chair" disability. Rheumatoid arthritis, then, is characterized by symmetrical involvement of the joints, especially of the small joints, such as the fingers, exhaustion, frequent evidence of impaired circulation to the extremities, anemia, pain, often a low grade fever and large effusions. It occurs at any age but is more common before forty-five; it is more common in women and in the asthenic type. Studies of the micropathology of the disease as well as many of the clinical features suggest that chronic atrophic (rheumatoid) arthritis has much in common with rheumatic fever. It is more probable that the joint disease represents a reaction of the joints to a group of streptococci rather than to any one specific germ. It is also probably an allergic or some other type of pathologic reaction in the joint to these distant bacteria. Dr. Russell L. Haden of the Cleveland Clinic says there must be more than one factor in rheumatoid arthritis; even with specific bacterial infections there are always nonspecific factors.

Successful treatment of a patient depends almost entirely upon a careful preliminary study. Dr. Haden emphasizes these points as important in a study of a patient of arthritis:

1. A thorough search for a focus of infection. The common sites for focal infection are the tonsils, sinuses, dental areas and the genital organs. Any tonsil tissue is a possible source of infection, regardless of local evidence of infection. The sinuses should be thoroughly investigated and X-rays should be made, if indicated. Complete dental radiographs should be taken, regardless of pulpless teeth or even an edentulous mouth, since infection remains infrequently after the removal of teeth and infection may be found around vital and seemingly normal teeth. The prostate in the male should be examined by palpation and the prostatic secretion obtained for microscopical study. A visual inspection of the cervix and a bimanual examination of the adnexa in the female should be a matter of routine.

2. Radiographs of a typical joint should be taken to aid in determining the type of disease and the extent of joint involvement, bone decalcification or hypertrophy.

3. The sedimentation rate of the corpuscles should always be determined. This

procedure is most valuable in differentiating the two types of arthritis and helps greatly in determining the degree of activity in the atrophic type of the disease. The sedimentation rate seldom is increased in uncomplicated chronic hypertrophic arthritis. With improvement in chronic atrophic (rheumatoid) arthritis, the sedimentation rate decreases, so it is an excellent index of the patient's progress.

4. A complete study of the gastro-intestinal tract is most valuable. Gallbladder disease or disturbed function may be revealed by a dye visualization test. The gallbladder may occasionally be the sole causative focus in arthritis. In such cases the causative organism may be removed from the gallbladder wall and a vaccine made. The size and shape and emptying rate of the colon are determined by the radiographic study after a barium enema. Changes in the colon may give definite indications for treatment. A gastric analysis should always be done. In many cases of chronic atrophic arthritis, there is achlorhydria, which may throw light on other findings, such as hypochromic anemia.

5. Certain blood chemical studies are always indicated. A glucose tolerance test affords valuable information. Many patients show a curve of decreased tolerance characteristic of diabetes mellitus which, with relief of the joint disease, may return to normal. The findings of such a curve is an indication for carbohydrate restriction in the diet and sometimes for the use of insulin.

The blood uric acid should also be determined, especially in chronic hypertrophic arthritis, as certain cases are closely simulated by gout. At times the uric acid in the blood of a patient with chronic atrophic (rheumatoid) arthritis is elevated also.

6. The basal metabolic rate should be estimated routinely.

7. The history and physical examination should be reviewed to evaluate contributing factors. The constitutional make-up of the patient often aids in determining the type of arthritis in borderline cases. There may be a long history of some debilitating disease. Nervous and physical exhaustion, such as a trying school session for a teacher, may be a most important factor in precipitating the disease, especially the atrophic form. Physical over-activity often precipitates the symptoms in a previously silent chronic hypertrophic arthritis.

TREATMENT

1. Rest in bed. Most patients with chronic atrophic arthritis have the idea that to remain in bed will only make the joints stiffer. Nothing is further from the truth. Rest in bed is the primary indication in treatment. It is apparent that the joints should not be allowed to stiffen from lack of use while the patient is in bed. The patient should have joint use while having body rest. It is most important also to have rest in bed for a sufficiently long time. This usually means a period of weeks, just as in pulmonary tuberculosis.

2. It is certain that a proper diet is a most important link in treatment. The clinic at Cleveland is using almost routinely a diet in which there is very little carbohydrate and a rather low caloric content. Abundant vitamins and proteins are provided. Patients usually lose weight on this regimen, which is desirable. In overweight patients, it is often best to give only fruit juices for five days after the first examination and then to begin the diet indicated. This diet should not be kept up indefinitely as a rule. After recovery is under way, many patients do better with larger amounts of carbohydrate. There is often found a hypotonic dilated colon in atrophic rheumatism which may be benefited by vitamin B. In the case of an atonic right colon with a spastic left colon, the roughage in the low carbohydrate diet may be very distressing and have to be discontinued. Rest, heat to the abdomen and antispasmodics may give sufficient relief to allow the patient to continue the diet, but if the distress continues, a smooth nonresidue diet must be substituted. Evidence indicates that combination of bilirubin and bile salts has a beneficial effect in atrophic arthritis. Further studies and confirmation of this statement are required before the observations may be applied generally.

Dr. Charles Hartsock of the Cleveland Clinic says that it is of the utmost importance that the nutritional factor be improved before any further exhaustive treatment be instituted, such as operative procedures, vaccine and typhoid therapy. The purpose of his paper was to emphasize that investigation and treatment must be directed toward the gastrointestinal tract, even in the absence of symptoms, in a disease which manifests itself chiefly in the joints but in which there are also constitutional factors affecting the nutrition.

3. Added vitamins. There is much evidence to show that a lack of vitamin B also

is a factor in the causation or continuation of the joint disease. Vitamin B should be provided as wheat germ or yeast. Embo and Bemax are purified wheat germ preparations and are very satisfactory. Vegex is a yeast extract which is an excellent source of this vitamin. Vitamins A and D, also should be given in the form of cod liver oil or halibut liver oil. Ertron is a special preparation of vitamin D which contains a large number of units of the vitamin and is used by some recent workers who claim excellent results in chronic arthritis of all kinds.

4. Physiotherapy. This is almost a necessary adjunct in treatment but should be general as well as local. For local treatment diathermy, massage and manipulation of affected joints are used. The paraffin bath is especially valuable but usually can be used only for hands and feet. Massage should be given in the direction of the venous flow.

Physiotherapy is employed to loosen up tissues in and around the joints to improve the local circulation. Still more important, however, is its general tonic effect on the general circulation and metabolism. For the general effect, radiation with an ultraviolet lamp or sunbaths, when these are possible, are always used. Breathing and postural exercises and abdominal massage help much to add tone to the thoracic and abdominal circulation and can always be employed. Can we not teach a patient to place a small pillow under the chest and knees, hyperextend the spine and throw the head back? Or can we not direct the face-prone position with a pillow lengthwise under the chest and abdomen? These two positions approach the nearest complete physiological relaxation. They should be practiced by the chronic arthritic. Can we not teach the patient to use the melted paraffin for heat application to the joints? No equipment is required other than a five quart container or double boiler, eight pounds of wax, obtainable at any filling station, and a burner. The wax melts at a temperature of 120 degrees F., and the patient will be able to dip his hands safely in the wax when it starts to solidify over the top. Five or six coats will give the patient a pair of warm gloves which are then wrapped in a towel until the heat is dissipated. The wax may be painted in layers over larger joints. One treatment daily will be sufficient.

5. Medication. This is a small part of the treatment. Many patients have a hypochromic anemia which responds almost

specifically to large doses of iron (sixty to eighty grains of Blaud's pills or iron ammonium citrate every day). Arsenic is probably the one most valuable drug in the treatment of chronic atrophic arthritis. It is preferred to use it in the form of nearsphenamine. A dose (0.3 to 0.45 Gm.) is given twice a week for about ten injections. Thyroid extract may be tried if the metabolic rate is low. It is usually well tolerated. Dilute hydrochloric acid should be given if the acid is low or absent in the gastric secretion. Blood transfusions are indicated in severe anemias associated with rheumatoid arthritis.

The use of colloidal sulphur in cases of chronic rheumatism does not offer convincing evidence as to its efficacy. In rheumatoid arthritis in younger individuals it seems to offer no aid; however, in older individuals and in cases of mixed arthritis and osteo-arthritis it has caused improvements. In these cases the cystine (sulphur containing amino acid) content of the finger nails was said to be low and sulphur treatment is often beneficial.

I would like to change Dr. Haden's recommendation of Blaud's pills to some of the preparations of iron which contain vitamin B, as, Ferro-B; Vitafer; Ferro-Vitol. Salicylates often fail to relieve rheumatic pains and at times cause gastric hyperacidity with nausea. Sodium salicylate, iodide, and colchicine intravenously minimizes nausea and may be a more effective analgesic combination while neocinchophen in gr. XV doses repeated often is often the best preparation. Suspect malignancy in the patient with arthritis whose pain requires the prolonged administration of opiates. Tr. Gelsemium has been used in the past by the older physicians. Colchicum and the salicylates are known to cause increase in uric acid elimination from the body. Potassium iodide has aided some cases of chronic rheumatism and is probably indicated more in the following type. This ends the discussion of chronic-infectious arthritis; the following type is chronic-non-infectious.

The degenerative type of chronic arthritis (chronic hypertrophic arthritis or osteo-arthritis) is a disease of age and use. It occurs to some extent in every elderly individual and usually is associated with other degenerative processes, such as arteriosclerosis. Ankylosis of the joints never occurs, and rarely is this a disabling disease, except in patients of advanced age, although it frequently is a source of discomfort. While chronic hypertrophic-arthritis may

almost be regarded as a normal aging process, the rapidity of development and the period of life at which it manifests itself clinically are much influenced by infections and other intercurrent disease, trauma, toxemia from various causes, circulatory disturbances, and glandular insufficiency or imbalances.

The pathology of degenerative arthritis involves the bones and not the soft parts. There is pain in the knee and nothing on the outside to show for it. In the bones the X-ray shows an increased amount of lime salts. There are outgrowths of bone or spurs. This causes it to often be confused with proliferative arthritis. For example, spurs may grow from the end of each bone and these interlock giving immobilization of the joint. There is, however, no ankylosis and no erosion of the cartilage. The end of the bone looks like the white coating over a billiard ball. There may be irregular surfaces as one condyle may be elevated and the other somewhat lower. Hypertrophic arthritis is more common in the florid, obese, sthenic individual.

One other pathological point which I should mention and that is after the arthritis has progressed to some extent there is a lack of function of the capillaries to the joint. In degenerative (hypertrophic) arthritis the anatomic change may progress asymptotically over a period of years. Hypertrophic arthritis involves the terminal joints of the fingers (Heberdens nodes), the knees, the spine, or the shoulders in the order mentioned. Periarticular swelling and even intra-articular hydrops, due to traumatic synovitis or irritation, may occur. An X-ray of a joint may be negative and still be the seat of arthritis.

First, before going outside of our original classification, I would like to re-emphasize the fact that foci of infection are just a small part of rheumatism but they should always be eliminated. The dentist and a tonsillectomy cannot cure every case of rheumatism. We must look to the extra-foci and extra joint phases of arthritis.

Articular gout. In many cases severe chronic deforming arthritis develops from a true gout, originally characterized by acute attacks. Acute attacks of gout may follow radiation therapy, especially in leukemia, following the crisis in pneumonia from the leucocytic disintegration and absorption of the pneumonic exudate, following operation or after profuse diuresis. The X-ray findings of chronic gout are the same as those of degenerative

arthritis; alkaptonuric arthritis, another form of metabolic arthritis, shows similar findings. Gout may therefore be classed as acute non-infectious and also chronic non-infectious.

Individuals with gout are prone to fibrositis. There are two types of fibrositis, namely: (A) intramuscular fibrositis (1) lumbago; (2) torticollis; (3) pleurodynia, and (B) periarticular fibrositis. Fibrositis is an inflammation of the white fibrous tissue not only of the muscle sheaths but also of the nerve sheaths. It tends to become chronic. A brief resume of the latest treatment of fibrositis occurs in the September issue of the Kentucky Medical Journal, 1939, under the A. M. A. Review of Misch Casper, M. D.

Time does not permit discussion of chronic ankylosis of the vertebral column (Strumpell-Marie's Disease), acute and chronic muscular rheumatism, acute polymyositis, syphilitic, or tuberculous arthritis. These are discussed in Strumpell's Practice of Medicine, Volume 2. There is an interesting article on Fibrositis and Myositis in the Chicago number of the Medical Clinics of North America for January, 1937.

In the thyroid deficiency type of degenerative arthritis the blood cholesterol, if determined, is high and Heberdens nodes of the fingers are characteristic. In the obese type the cholesterol is normal. Both types show a flat glucose tolerance curve. In the obese type, the obesity is of the girdle type and it begins earlier in life and there may be sacroiliac involvement along with other joints. Menopausal degenerative arthritis may begin before, during, or after the change and usually involves the knees.

Pains in the joints, with some stiffness, may be the only symptoms of hyperparathyroidism. A specimen of blood will show increased calcium content and decreased phosphorus. Exploration commonly reveals a parathyroid tumor near the thyroid gland, the removal of which results in a cure of the pains and the associated bony decalcification.

The treatment of degenerative arthritis is to treat the underlying condition. The only difference, essentially, between the treatment of the two types is that in rheumatoid arthritis a low carbohydrate diet is advised and in degenerative arthritis a low fat diet is recommended with adequate vitamins in each.

Since the pain of arthritis does not come from the bone and cartilage but from the

soft periarticular structures, some men have injected novocaine into these soft structures and have relieved the pain. Bee venom injections have been recommended. These methods may prove successful. Until they become practical, we, as general practitioners, can do well by examining and treating the patient as such. If we do this latter, the arthritis will be materially aided.

INTRA-UTERINE SKULL FRACTURE

G. F. JONES, M. D.

and

WALTER L. O'NAN, M. D.

Henderson

Mrs. J. M., age 39, mother of five children, last were twins with one dead at 1 month of age, all others living and well.

Last menses July 24, 1938, no pre-natal care, but in October, 1938, fainted in downtown store. Doctor called and treated her for pyelitis. Always in good health, and took no extra calcium during pregnancy. Had felt life but uncertain as to date.

March 26th at 9:30 A. M., riding with her husband and son in the cab of a Ford truck, had a wreck in which the truck turned over on her side, pinning her underneath the truck with the cab door open on her side. The husband got out on his side, lifted the child out, righted the truck and rescued his wife.

She was brought to the Hospital at 9:45 A. M. complaining of pain in the right hip, with a large hematoma on the right gluteus, no shortening of the limb, signs of a pregnancy near term and fetal movements felt. Morphine and atropine sulphate were given. At 3 P. M. she passed 30 cc. of blood per vagina and during the night 60 cc. more.

Roentgen ray showed fracture of both rami of the right pubis in good position, the outline of a fetal head and a depressed fracture of the parietal bone of the baby.

She voided, the sample showing: cloudy, amber, acid, 1.025 specific gravity, albumin xx, sugar negative, a few pus and epithelial cells but no blood.

Symptoms of ileus developed and on her fourth day she had several defecations and at noon uterine contractions were 8-10 minutes apart, lasting only a few seconds, no fetal heart ones. Morphine sulphate was given.

At 4 P. M. the same day by classical Caesarian a live, 5 pound 13 ounce male infant was delivered, a bilateral salpingectomy was done and the ileus was relieved. Ergotrate and pitressin were necessary postoperatively.

The baby breathed spontaneously, was never cyanotic nor showed signs of intracranial pressure. There was a depression in the right parietal area for several weeks which gradually disappeared.

The mother's temperature rose to 101, pulse 112 and respiration 24 on the fifth postoperative day and on the sixth to tenth day she had a slight diarrhea.

Mother and baby remained in the hospital fifty-three days and were dismissed to stay in bed several weeks at home.

The baby is now a year old, well nourished and healthy, no signs of his fracture. The mother walks without a limp and has been doing her own housework.

BOOK REVIEWS

THE PATIENT'S DILEMMA, The Quest For Medical Security in America, by Hugh Cabot, M.D., Member of the Mayo Clinic, former Dean of Medical School, University of Michigan. Pernal and Hitchcock, Inc., 386 Fourth Ave., New York, Publishers. Price, \$2.50.

This book is not a controversial argument on the current medical problem of the medical cost and care, it is a well balanced, authoritative discussion of the present state of medical knowledge and the need for securing adequate attention of the American people to the problems of their health and their responsibilities for the health of their community.

FRACTURES. By Paul B. Magnuson, M.D., F.A.C.S., Associate Professor of Surgery, Northwestern University Medical School, Attending Surgeon, Passavant Memorial Hospital and Wesley Memorial Hospital, Chicago. Third Edition, revised and enlarged. 317 illustrations. J. B. Lippincott Company, Publishers, Philadelphia. Price, \$5.00. Third edition.

No physician in these days of rapid, dangerous transportation should be without a good book such as this one on fractures.

This new third edition has been enlarged, revised and fits the needs of the general practitioner who first sees the fracture. It describes in detail only those methods which have been thoroughly tried in practice. The treatment is simplified and the approach to the problem of fracture is always from the standpoint of anatomy and physiology.

PNEUMONIA WITH SPECIAL REFERENCE TO PNEUMOCOCCUS LOBAR PNEUMONIA. By Roderick Heffron, M. D., Medical Associate of the Commonwealth Fund, formerly Field Director, Pneumonia Study and Service, Massachusetts Department of Public Health. The Commonwealth Fund, 41 East 57 Street, New York, Publishers. Price \$4.50.

Pneumonia, with Special Reference to Pneumococcus Lobar Pneumonia, is a comprehensive review of investigations dealing with the disease. The author has included an extensive discussion of the inciting agent, methods of its transmission, the complex subject of immunity, and prevention.

On the clinical side the volume presents full information about the lesions produced, diagnosis, factors influencing recovery, and methods of treatment, including discussions of medical care, antiserum, oxygen, vaccine, and chemotherapy. The results of specific serum treatment in large series of collected cases, including those observed during the Massachusetts Pneumonia Study and Continuing Program, are set forth.

In the preparation of the book, practically all of the more important discussions of the subject were reviewed and abstracted, as indicated by the 1471 titles in the bibliography. It is believed, therefore, that the volume will serve as a complete text and source book on the subject for many years.

LIFE AND LETTERS OF DR. WILLIAM BEAUMONT. By Jess S. Meyer, A. B., M. D., Late Associate in Medicine in Washington University, St. Louis. With an introduction by Sir William Osler, Bt., M. D., F. R. S. Late Regius Professor of Medicine in Oxford University, England. The C. V. Mosby Company, St. Louis.

Dr. William Beaumont, the pioneer American physiologist accomplished under most discouraging circumstances some of the most remarkable medical research of all time.

Ever since June 6, 1822, the story of Dr. Beaumont and the case of Alexis St. Martin has had a peculiar fascination for persons in various walks of life—from the school boy, who gains his first knowledge of the incident from his "Essentials of Physiology," to the scientist, who, by comparison of Beaumont's work with the most recent developments in the physiology of digestion, marvels at the thoroughness of this remarkable piece of research conducted by a young army officer under great difficulties in an isolated army post.

This monumental work was originally published in 1912, after the author, the late Dr. Jesse

S. Myer, had struggled for years with a mass of interesting material gathered from many sources. Because of the increasing interest in Beaumont and his work during recent years, the publishers have decided to reprint the book in its present form with some corrections and a few additions.

THE ART OF ANESTHESIA. By Paleul J. Flagg, M. D., Visiting Anesthetist to Manhattan Eye and Ear Hospital. Consulting Anesthetist to St. Vincent's Hospital, Mt. Vernon Hospital, Flushing Hospital, etc. Sixth Edition. Revised, 161 Illustrations. J. B. Lippincott Company, Publishers, Philadelphia. Price \$6.00.

The entire field of anaesthesia is covered with a wealth of detail. This new book provides the "groundwork for a comprehensive knowledge of the art of anaesthesia." General, local, basal and mixed anaesthesia are covered thoroughly. It gives the cumulative experience in the field of intratracheal anaesthesia and describes the technic for intubation, the complications and how to meet them. New drugs including cyclopropane, vinethene, new basal anaesthetics and their special uses are given. The carbon-dioxide absorption technic, special methods of resuscitation and dental applications are also included. Among the 161 illustrations, most of which are new, there are graphic pictures of recently developed apparatuses, including the B. L. B. inhalator. A book that everyone who administers anaesthesia, as well as every surgeon, should own. Its excellent treatment of the fundamentals of anaesthesia plus the discussion of the latest drugs and anaesthetics make it the most valuable book on the subject offered today.

HEMORRHOIDS, by Marion C. Pruitt, M.D., L.R.C.P., F.R.C.S. (Ed.), F.A.C.S., Atlanta, Georgia, President of the American Proctologic Society, Associate in Surgery, Emory University School of Medicine, Proctologist Grady Hospital, Crawford W. Long Memorial Hospital, Georgia Baptist Hospital, and Atlanta Antituberculosis Association, formerly Resident Surgeon, Westminster Hospital, London, England. With 73 illustrations including 7 in color. The C. V. Mosby Publishing Co., St. Louis. Price, \$4.00.

This book discusses in detail the electric, injection and operative treatment of hemorrhoids. The detailed technic of the much discussed injection method is given with the discussion of the several solutions advocated.

The colored plates illustrating the anatomy of the rectum and its various pathological conditions are very excellent.

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NEXT MEETING: LEXINGTON

SEPTEMBER 16-19, 1940

THE LEXINGTON MEETING

In this issue of the Journal, the preliminary program of the Lexington Session of this Association, September 16 through 19, is published. We take a great deal of pride in presenting this program to our members, and we know it will make every active physician in the State eager to be present particularly for the scientific sessions. Dr. Frank Stites of Louisville, and Dr. Austin Bell, President Elect, Hopkinsville, have done a very large amount of work in preparing a program with such scientific appeal.

It is the considered purpose of the Kentucky State Medical Association to preserve for the people of this Commonwealth the incomparable human social values that surround the private practice of medicine. We have complete confidence that this purpose can be attained and that private practice will be assured for the people of Kentucky if we continue increasingly to so improve our own knowledge and practices in full accord with the high traditions of the medical profession as to retain the confidence of our people. There have been more good meetings of County Societies in Kentucky during the past year than in any other year of its history. As long as the meetings of the County Societies and profession are attended by the active practitioners of the State, and as long as we keep up with modern knowledge in the scientific sessions of our State Association, we will be building the best defense against those destructive influences that would subordinate the profession to outside control.

With these thoughts in view, we hope every member of the Association will arrange to be in Lexington for all of its scientific sessions.

THE CRAWFORD LONG CHAIR

Several years ago Dr. Charles Scott Venable of San Antonio, Texas, acquired the chair in which Dr. Crawford W. Long administered ether as a surgical anesthetic for the first time at Marietta, Georgia. Dr. Venable had his friend, Dr. Frank Bolland of Atlanta, preserve the chair until a fitting place could be found for its custody. At the last meeting of the Southern Surgical Association, Dr. Venable discussed the matter with our own Dr. C. A. Vance and proposed to send the Crawford W. Long chair to the Ephraim McDowell-Jane Todd Crawford Memorial Building at Danville.

It is very important in this connection to

remember that Dr. McDowell performed his operation on Christmas Day, 1809, and that Dr. Long used ether anesthesia in surgery on March 10, 1842.

The Kentucky State Medical Association is grateful to Dr. Venable for both his vision in securing the chair and his generosity in presenting it to the McDowell-Crawford Memorial, and to Dr. Boland for having so carefully cared for it, and to our own Dr. Vance for having consummated the presentation of this historic gift.

The Custodian of the Memorial tells us that the Crawford Long chair arrived late in the afternoon. After it had been uncrated and was gently rocking in the dusk of the living room, facing an equally beautiful McDowell chair, she could almost see the nod of recognition which passed between "the quality" of that antebellum day when both had been chairs of destiny. As she left the darkening room, she could almost hear them whispering the confidences that naturally would have been exchanged between their owners, had they come together in the long ago.

CHILD HEALTH

Since the day not so long ago when Dr. Abraham Jacoby limited his practice to the diseases of children, the specialty of pediatrics has grown by leaps and bounds. The study of the statistics of morbidity and mortality of infants and children convinces one that more progress has been made in the care of the health of this particular class than in any other field in medicine with the possible exception of the environmental diseases. We have been particularly fortunate in those who have devoted themselves to the specialty of pediatrics, and the leader of them, through all these many years, has been Dr. Philip F. Barbour, who has been head of the Department of Pediatrics of the University of Louisville during the entire period when most of the men now practicing medicine in Kentucky have been students. For this reason, we know every member of the medical profession as well as the people of Kentucky will be happy to know that Dr. Barbour has retired from private practice and will devote his entire time to work with the Bureau of Maternal and Child Health of the State Department of Health as a Consultant in Pediatrics. For fifteen years, Dr. Barbour has been Chairman of the Committee of the State Medical Association in charge of graduate education in pediatrics, and his new activities will enable him to devote his entire time to this work. He will be available for consultation,

and for the organization of clinical programs in the County Societies and County Health Departments and will be glad to be of service to physicians in the State who desire to consult with him on subjects of child care and child health. Dr. Barbour is a former member of the Council of the State Medical Association and was one of its most active and successful presidents. His work in this new field is significant evidence of the wholesome connection between the private practitioners of medicine and those who devote themselves to public health in Kentucky.

JOHN GLOVER SOUTH

John South would have been a distinguished man in any field in which he could utilize his versatile talents. He had personal charm amounting to positive magnetism. As a student, he showed his developing mind and in addition, distinction as an athlete. He was one of the most successful private practitioners of medicine in the State. Associated with his distinguished uncle, the late Dr. Hume, he enjoyed a very large practice. He was County Health Officer of Franklin County and successfully managed one of the largest epidemics of smallpox in the history of the State. For many years, he was President of the State Board of Health and during his period of service, never missed a meeting. He was President of the State Association from September, 1919, to September, 1920, and on several occasions, represented the State Association in the House of Delegates of the American Medical Association. During the early development of the oil fields of Kentucky, he became interested and showed he was a wizard in the technical finance of this industry. Called from the profession of medicine, he was Minister from the United States to the Republic of Panama and to the Kingdom of Portugal, and was as successful as a diplomat as in the practice of his chosen profession. Upon his return to Kentucky, he accepted a position as Director of the Bureau of Medical Registration in the State Board of Health and filled this position with the same diplomacy and intelligence as in all previous positions. When the occasion arose, he was an orator and a man of great moral courage. His life will fill some of the most interesting pages in the history of medicine in Kentucky.

The sympathy of the profession will be extended to his devoted wife and his loss will be deeply felt by all who knew and loved him.

OFFICIAL ANNOUNCEMENT

PRELIMINARY PROGRAM

KENTUCKY STATE MEDICAL ASSOCIATION

LEXINGTON

September 16, 17, 18, 19, 1940

Tuesday, September 17

9:00 A. M.

Call to Order by the President

Invocation

Address of Welcome

Response

Installation of President

Report of Committee on Arrangements,
C. A. Vance, Chairman.

SCIENTIFIC SESSION

Tuesday, September 17

10:00 A. M.

CASE REPORTS

1. Tumor of Small Intestine.....
..... Herman Mahaffey
Louisville

Discussion opened by.....
..... Malcom Thompson
Louisville

2. Parathyroid Tumor.R. Arnold Griswold
Louisville
Discussion opened by..Harper Richey
Louisville

3. Adrenal Tumor....Joseph E. Hamilton
Louisville

Discussion opened by.....

1. Some Behavior Problems in Infancy
and Early Childhood...W. F. Lamb
Russellville
Discussion opened by W. W. Nicholson
Louisville

2. Prophylactic Measure During Child-
hood and Choice of Preparation
.....C. D. Cawood
Lexington
Discussion opened by....James Bruce
Louisville

3. Vitamins—Their Use in Children..
..... T. J. Marshall
Paducah
Discussion opened by..Harry Andrews
Louisville

SPECIAL ORDER

Tuesday, September 17

12:00 M.

ORATION IN SURGERY

- Lung Abscess Allen E. Grimes
Lexington

SCIENTIFIC SESSION

Tuesday, September 17

2:00 P. M.

1. Appendicitis in Children
..... James Pritchett
Louisville

Discussion opened byChas. Vance
Lexington

2. Obscure Fevers H. V. Noland
Louisville
Discussion opened by..Virgil Simpson
Louisville

3. Uterine BleedingJos. Henry
Louisville
Discussion opened by.. C. W. Hibbitt
Louisville

4. An Evaluation of the Present Status
of Male Hormone Therapy.....
..... James R. Hendon
Louisville
Discussion opened by Clayton McCarty
Louisville

Tuesday, September 17

8:00 P. M.

- Subject Nathan B. Van Etten
New York

Surgical Consideration of the Gall Blad-
der and Bile Ducts..Arthur W. Allen
Boston, Mass.

SCIENTIFIC SESSION

Wednesday, September 18

9:00 A. M.

1. Chemo-Therapy In Urological Cases
..... J. A. Bowen
Louisville
Discussion opened byD. E. Scott
Lexington

2. Differential Diagnosis of Breast Tu-
mors J. A. Ryan
Covington
Discussion opened by....Louis Frank
Louisville

3. Gastroscopy as an Aid in the Diagnosis
of Stomach Disease..Sam Overstreet
Louisville
Discussion opened by....Clark Bailey
Harlan

4. Indication of Surgery and Choice of
Operation in Peptic Ulcers
..... Fred W. Rankin
Lexington
Discussion opened by ..Irvin Abell, Sr.
Louisville

SPECIAL ORDER

Wednesday, September 18

12:00 M.

ORATION IN MEDICINE

Subject Oscar O. Miller
Louisville

SCIENTIFIC SESSION

Wednesday, September 18
2:00 P. M.

1. Syphilis—Its Modern Management ..
..... R. E. Teague
Paducah
Discussion opened by... F. W. Caudill
Louisville
2. Hoarseness, an Important Symptom
..... Shelton Watkins
Louisville
Discussion opened by... M. G. Buckles
Louisville
3. Joint Fractures G. Y. Graves
Bowling Green
Discussion opened by... G. L. Simpson
Greenville
4. Scalenus Anticus Syndrome
..... Franklin Jelsma
Louisville
Discussion opened by John Stites
Louisville

ANNUAL SUBSCRIPTION DINNER

Wednesday, September 18
6:30 P. M.

- President's Address Austin Bell
Hopkinsville
- Address: "Management of Patients with
Acute Myocardial Infarction"...
..... Tinsley R. Harrison
Nashville, Tenn.

SCIENTIFIC SESSION

Thursday, September 19
9:00 A. M.

1. Diabetes—Evaluation of the Various
Insulins C. C. Turner
Glasgow
Discussion opened by.... Lyne Smith
Louisville
2. The Problem of Drainage Following
Operation in the Bile Passages...
..... J. G. Gaither
Hopkinsville
Discussion opened by... E. W. Jackson
Paducah
3. Applied Pathology of the Paranasal
Sinuses W. A. Weldon
Glasgow
Discussion opened by... Samuel Marks
Lexington
4. Vomiting of Early Pregnancy
..... E. P. Solomon
Louisville
Discussion opened by Stanley S. Parks
Lexington

SCIENTIFIC SESSION

Thursday, September 19
2:00 P. M.

1. Odema—Types and Management ...
..... L. T. Minish
Frankfort
Discussion opened by C. N. Kavanaugh
Lexington
2. Weight Control R. N. Holbrook
Louisville
Discussion opened by... John Harvey
Lexington
3. Early Diagnosis and Treatment in
Neurosyphilis J. H. Rompf
Lexington
Discussion opened by ... Arthur Kasey
Lakeland
4. The Treatment of Appendiceal Peri-
tonitis Woolfolk Barrow
Lexington
Discussion opened by E. Dargan Smith
Owensboro

COUNTY SOCIETY REPORTS

Jefferson: Resolutions upon the death of Doctor Edward Duff Burnett, 1878-1940, by the Jefferson County Medical Society.

Whereas: On April the seventh, 1940, Doctor Edgar Duff Burnett answered for all eternity, the ever present knock of Death at Life's half-open door; and

Whereas: Doctor Burnett was peculiarly endeared to the Jefferson County Medical Society, to his family, and to the Community at large by his scientific and genial characteristics, the loss of which shall be so deeply felt; therefore be it

Resolved: That this Society inscribe resolutions of sorrow and sympathy upon the pages of its own minutes; and that a copy of these resolutions be presented to the patients; and that a copy be published.

Oh Light that leads, shine on his 'customed way!
Shine on his well formed path, as yesterday!

Let flowers blow, that he hath planted there;

And those, that follow on, his precepts share.

R. Alexander Bate, M. D., Chairman

Clyde McNeill, M. D.

Octavus Dulaney, M. D.

Tri-County: The Tri-County Medical Society composed of Carroll, Trimble and Gallatin counties, met at Carrollton, in its regular monthly meeting, Friday, April 12, 1940. Dr. Sam Gordon, Louisville, gave an interesting and instructive talk on Birth Control.

Following this, there was a movie, the embryology of fertilization in the human. Constructive discussion followed and everyone seemed to be very much interested in the meeting.

H. CARL BOYLEN, Secretary

KENTUCKY MEDICAL JOURNAL

BEING THE JOURNAL OF THE KENTUCKY STATE MEDICAL ASSOCIATION

Published Under the Auspices of the Council

VOL. 38, No. 7

BOWLING GREEN, KY.

JULY, 1940

PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

CHOLANGIOGRAPHY

MALCOM THOMPSON, M. D.

and

JOSEPH BELL, M. D.

Louisville

In 1914 Graham and Cole of St. Louis presented their method of X-ray visualization of the gallbladder. To this method they gave the name cholecystography. Cholecystography was immediately adopted throughout the entire medical world and soon became a standardized procedure wherever disease of the gallbladder was studied. One of the most serious shortcomings of the method was its failure to aid in the diagnosis of disease in the common biliary and hepatic ducts. A natural development was the injection of radiopaque solutions into the common biliary duct with subsequent X-ray visualization.

Surprisingly, the injection of radiopaque solutions into the biliary ducts, cholangiography, preceded cholecystography by several years though it did not come into frequent usage until after 1934. The first cases were accidental injections following gastro-intestinal X-ray studies. In 1917, Quimby and Quimby reported two cases in which the bismuth used in gastric studies had reached the gallbladder and produced an overlying shadow. (1)

Reich in 1918 studied a draining mid-axillary line sinus of two years duration by injecting a mixture of petrolatum and bismuth. Following X-ray examination he obtained a picture of the biliary ducts but a rather intense reaction with fever, jaundice and other symptoms ensued.

Burckhardt and Muller in 1921 injected an opaque solution directly into the gallbladder through the abdominal wall, but a moment's consideration of the danger involved in this procedure explains why it did not gain favor. The following year Tenney and Patterson demonstrated an obstruction at the lower end of the common duct by injecting an external biliary fistula with bismuth paste. (1)

In 1922, Camot and Blaumontier demonstrated a stone in the cystic duct following injection of a fistula with barium mush. In 1924, Lanari and Squimi injected lipiodol into an hydatid cyst of the liver.

In 1925, Cotte revealed a calculus in the ampulla of Vater, by injecting lipiodol into an external biliary fistula. (1) Many other isolated instances of cholangiography are

recorded but it remained for Mirizzi of Buenos Aires, Argentina, and for Best and Hicken of Omaha, Nebraska, to put the procedure upon a sound clinical basis. In 1932, Mirizzi reported the visualization at the operating table of ninety-one cases.

In 1934, independently of Mirizzi, Best and Hicken began to experiment with cholangiography and their efforts are largely responsible for the wide spread adoption of the procedure in this country. Their studies have been pursued consistently and they have published a number of papers. They embody two methods, the immediate cholangiography in which the radiopaque substance is injected into the common duct at the time of the primary operation upon the biliary system and the delayed cholangiography in which the biliary ducts are studied by injections into fistulae, cholecystostomy and choledochostomy tubes. In performing immediate cholangiography the abdomen is opened and the common duct identified by aspiration. From ten to twenty cc. of forty-eight per cent hippuran are injected using a twenty-two gauge short bevel needle. Upon the needle is a bead one-eighth inch from the point to aid in prevention of transfixing the common duct.

Of late there has been some difficulty in obtaining hippuran due to patent con-



Figure I.

Delayed cholangiogram following cholecystostomy. Filling defect lower end of common duct due to large stone.

flicts. Should hippuran not be available diodrast or lipiodol may be used. Aside from its use in diagnosis, where there is spasm of the sphincter of Oddi, lipiodol may have some therapeutic value in relaxing the spasm and in delayed cholangiography is sometimes used for that purpose.

After injecting the common duct with hippuran, X-ray exposure is made and the plate developed immediately. Study of the plate is made before the operation is completed. Should stone or other lesion be demonstrated in the ducts opportunity for its correction is afforded before closing the abdomen.

Should a definite indication for opening the duct be present there is, of course, no reason for performing cholangiography. Positive indications for opening the common duct are a history of jaundice, chills, increasingly frequent attacks of colic, the colicky pain being nearer the mid line than usual, the finding of turbid bile upon needling the common duct at operation, the palpation of stones within the ducts, or the palpation of an enlarged or thickened duct, or any enlargement or increased hardness of the head of the pancreas. When these indications are present the surgeon will be justified in opening the common duct and in most cases rewarded by finding stones or intraductal disease which will be benefited by T-tube drainage. After exploring the ducts and inserting the T-tube sometimes immediate cholangiography through the tube is valuable in ascertaining if a stone has been overlooked. The cholangiogram will sometimes reveal stones which the exploring sound or finger will fail to discover. It is with the cases in which there are no positive indications for opening the duct and yet in which the surgeon is not entirely satisfied with his examination of the ducts and pancreas that immediate cholangiography is particularly valuable. When there are no indications for opening the duct and when the surgeon is satisfied from his examination that the ducts and pancreas are normal, then immediate cholangiography is not indicated and the cholecystectomy can be proceeded with at once.

Hippuran is also used for delayed cholangiography. Sometimes fluoroscopic studies while the fluid is being injected are valuable. It is important to aspirate as much bile as possible from the biliary system before beginning the injection. All biliary sinuses and fistulae should be studied by delayed cholangiography.



FIGURE II.

Same patient few seconds later showing ball-valve action of stone.

Where tubes are present in the gallbladder or common duct it is of tremendous help in revealing the exact nature of conditions in the extra-hepatic biliary system. Stones in the cystic and common duct, strictures, abnormalities of the valves of Heister, diverticula, dilatation, congenital anomalies, and tumors of the papilla of Vater are subject to highly informative study by this method. It also is useful in determining the correct time to remove T or other tubes from the common duct. From experiences with cholangiography we are gradually reaching the opinion that drainage of the common duct should be continued as long as there is any appreciable delay in emptying of the duct.

The work of Best and Hicken has been most important in giving information not only as to the presence of stones in the common duct but as to the physiological basis for biliary colic when neither stone nor infection is present. This condition has been known for many years, but the mechanism of it was unknown until recently. Best and Hicken have termed this condition of colic without stone or infection as biliary dyssynergia and they believe that it is due to a spasm of the sphincter of Oddi.

One important outgrowth of their studies was the accidental finding that glyceryl trinitrate or nitroglycerin and the other ni-

trites were useful in relieving biliary colic. One of their patients was subject to attacks of angina pectoris as well as biliary colic. He discovered that nitroglycerin which helped to relieve the pain of angina pectoris was also beneficial for the attacks of biliary colic. (4) Experimental and later clinical work with the nitrites have definitely shown that they relieve spasm of the common and other hepatic ducts.

Other drugs have been studied by Best and Hicken and Walters and others as to their effect in relieving the spastic sphincter. Morphine was found not only not to relieve the spasm but actually to increase the pressure within the common duct. Pantopon and codeine have an action similar to morphine but lesser in degree.

Ordinary doses of atropine apparently have no effect upon the sphincter but very large doses tend to relax it. Physostigmine, acetylcholine, ergotamine tartrate, caffeine, and phenobarbital sodium subcutaneously, calcium chloride intravenously and spinal anesthesia apparently have no action in relieving spasm. (5) The action of papaverine is not constant. (6)

In conclusion permit us to say that we believe cholangiography is a most useful procedure for both experimental and clinical purposes. Like encephalography, urography, bronchography and other radiologic methods it will be of constant benefit to physiologist, physician, and patient. It even leads us to speculate as to where the end will be of the many fields of knowledge which Wilhelm Konrad Roentgen opened up in 1894 when he discovered that an active Crooke's tube would fog photographic plates.

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DISCUSSION

Hart Hagan, Louisville: Cholangiography is a valuable method for the study of the extra-hepatic bile ducts, an opportunity that we have not had by previous methods, and it is rather strange that it has not been developed to a greater extent.

Of the two methods referred to, the immediate

and the delayed method, so far at least, we have found the delayed method of greater value. The immediate method is fairly simple. It does not require very good team-work between the X-ray require any complicated equipment, but it does department and the surgical team at the time of operation.

Dr. Thompson mentioned that you inject hip-puran directly into the common duct. I should like to add that sometimes it is more easily injected directly into the stump of a cystic duct after the removal of the gall-bladder, and at times it may be found desirable to inject it directly into the gall-bladder. It serves its greatest purpose, however, in determining in doubtful cases whether or not we should open the common duct. In most instances the surgeon is able to determine whether or not he should open the common duct by the indications which Dr. Thompson has so well enumerated for you.

As for the delayed method, in my opinion it gives us the greatest amount of information and certainly it gives us the greatest amount of comfort. It enables us in many cases to determine whether or not a stone has been left behind or whether or not the common duct is patent and functioning normally. More particularly, as Dr. Thompson so well emphasized, it indicates the extent or duration of drainage that is necessary for the common duct. I should like particularly to emphasize that point. It demonstrates that the common duct, as we know, gradually returns

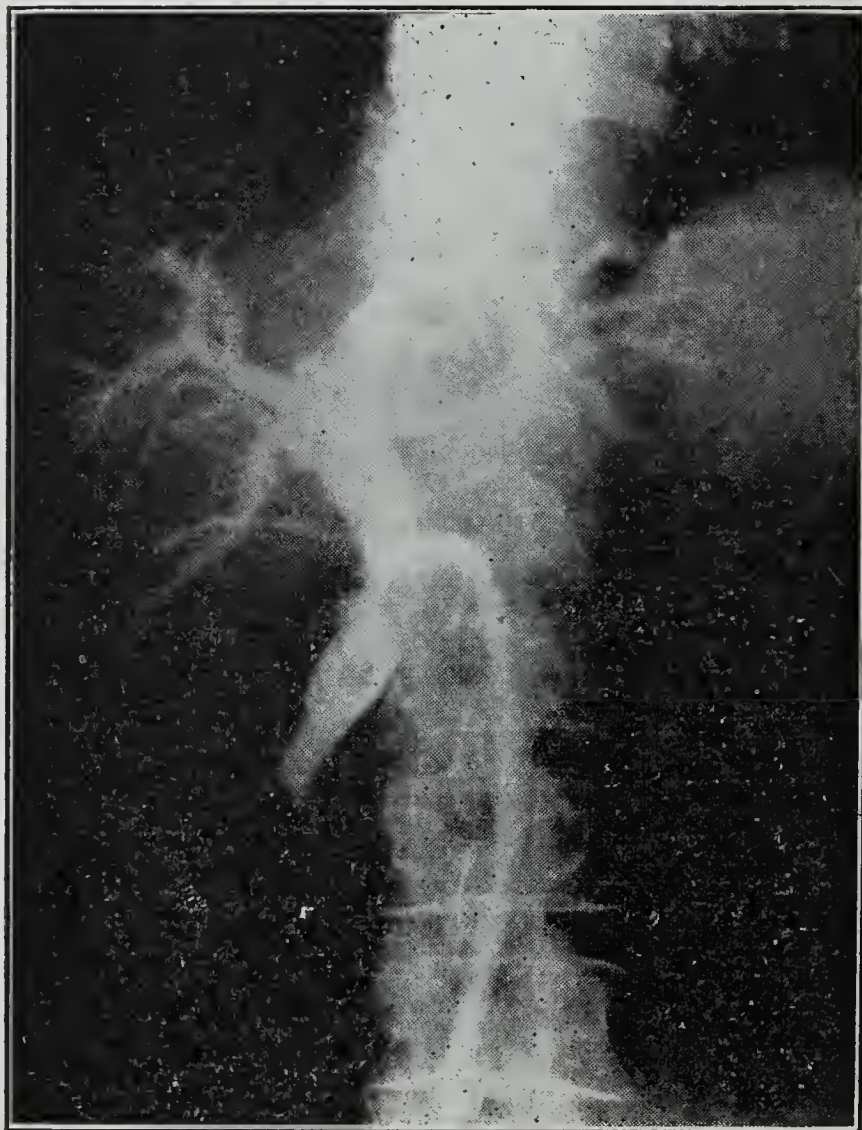


FIGURE I.

to its normal size from the dilated duct which has resulted from obstruction. Certainly the tube should be left in until we feel quite certain that normal function has returned and that there is no obstruction.

I should like to show the slides of a case. The patient, 72 years of age, had a history of repeated attacks of chills and high fever over a number of months, and these attacks were becoming more frequent and more severe. At operation the gall-bladder was found literally filled with stones. A stone was in the ampulla of Vater, and the entire common duct was packed with stones.

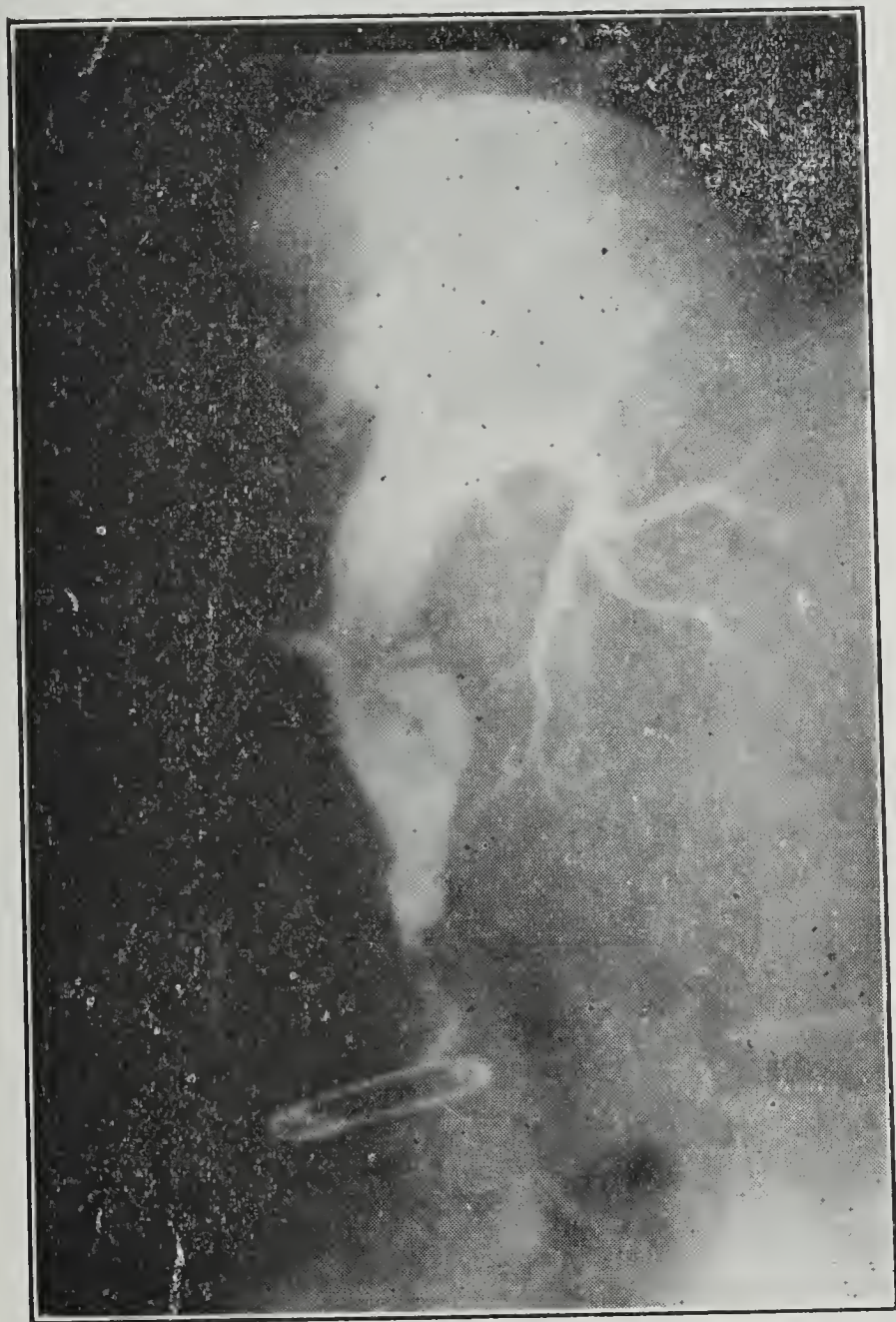


FIGURE II.

We removed the gall-bladder, opened the common duct, removed the stones, and left a T-tube in the common duct. At a later date we injected with hippuran for the study of the extra-hepatic duct. (Fig.1)

I wish you would particularly notice how nicely even the hepatic ducts are visualized. The hepatic ducts in the right lobe of the liver, and in the left lobe of the liver, and also the common duct are clearly visualized.

The picture (Fig.11) was taken just a few minutes later, which is a lateral view, shows two or three points: in the first place that hippuran is already passing into the duodenum; secondly, it shows a defect in filling which we have inter-



FIGURE III.

preted as an air pocket. There was some doubt at the time of operation about the cystic duct. We had difficulty, in other words, in determining its full extent and its point of entrance into the common duct. This lateral view shows it emptying posteriorly, passing down parallel to the common duct and entering on posterior surface. It shows how easily one might cause injury to the common duct.

The last picture (Fig. 111) was taken thirty or forty minutes later and you observe only the T-tube, indicating a patent common duct without any evidence of stones.

Irvin Abell, Louisville: Dr. Thompson has given us in a most interesting manner the story of the development of another diagnostic procedure which in common with many that have preceded it utilizes either dyes or other foreign materials for rendering body organs and body cavities visible to the x-ray. Frankly, my own experience with it has not been sufficiently great for me to say whether I will find it most useful as a primary measure or as a delayed measure.

In using the indications for opening the common duct which Dr. Thompson has mentioned, I recall very vividly three particular types in which the primary use of this diagnostic measure would have been of the greatest of help.

In some instances in which the common duct and the hepatic ducts are filled with stone, I don't think it is humanly possible, at least not for me, to feel that I have gotten them all, even when I have used the probe and the sound and the various types of common duct spoons and irrigations and suction apparatus.

In the second type where the gastrohepatic omentum is greatly thickened by inflammatory edema and swelling, it is not possible to detect by palpation any stone except a real large one, and we have left, under such circumstances, small stones that required secondary operations for their removal.

In a third type, it is known that in a certain percentage of cases the common duct passes directly through pancreatic tissue, entirely surrounded by pancreatic tissue, in which event it is utterly impossible for one to palpate that end of the duct, and he must rely upon some of the means which have been used in determining whether or not stones are present in that end of the duct. So having had no experience with the primary cholangiography, I am still looking forward to the use of it in such cases as those mentioned, and I believe it will be possibly a greater comfort to me under such conditions, because it is always unsatisfactory to send the patient back to the room from the operating table feeling that you may not have removed all of the stones.

Having no experience with the primary measure, Dr. Thompson has consented that I show you some slides of our patients in whom we have employed cholangiography as a secondary or delayed measure.

(Fig. No. 1)

This is from a thirty-nine year old man who

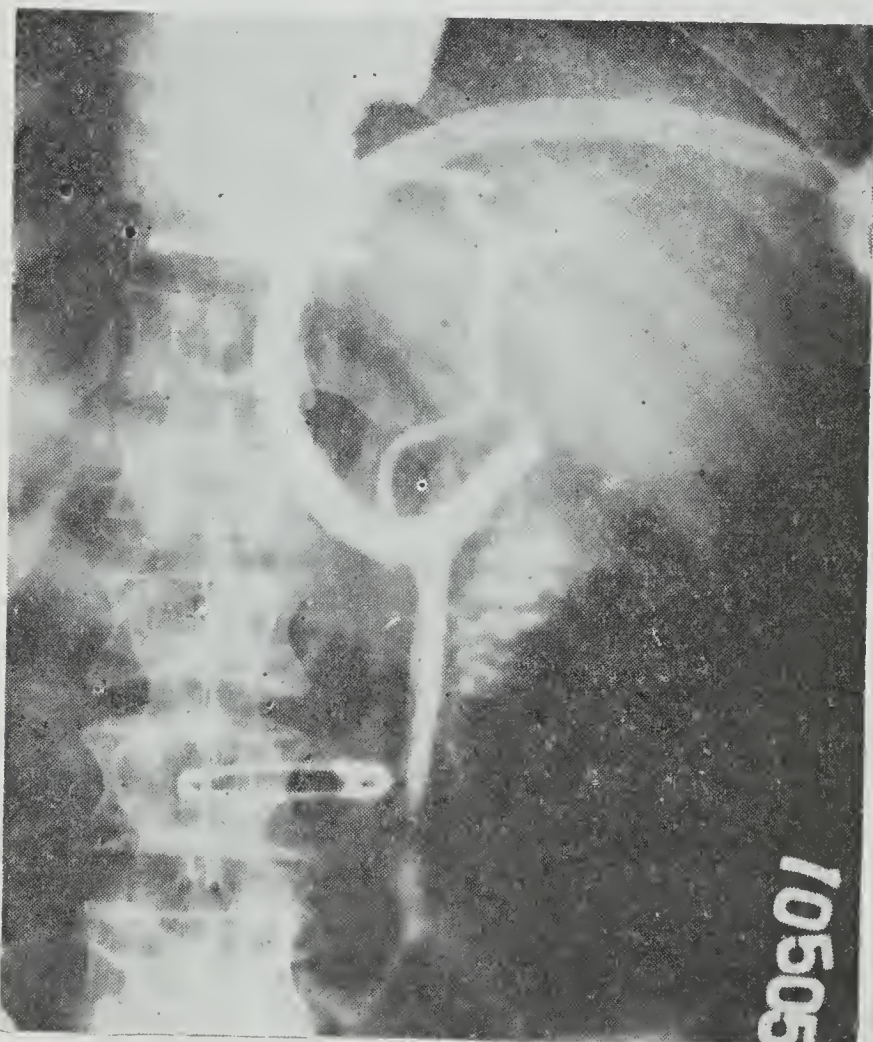


FIGURE I.

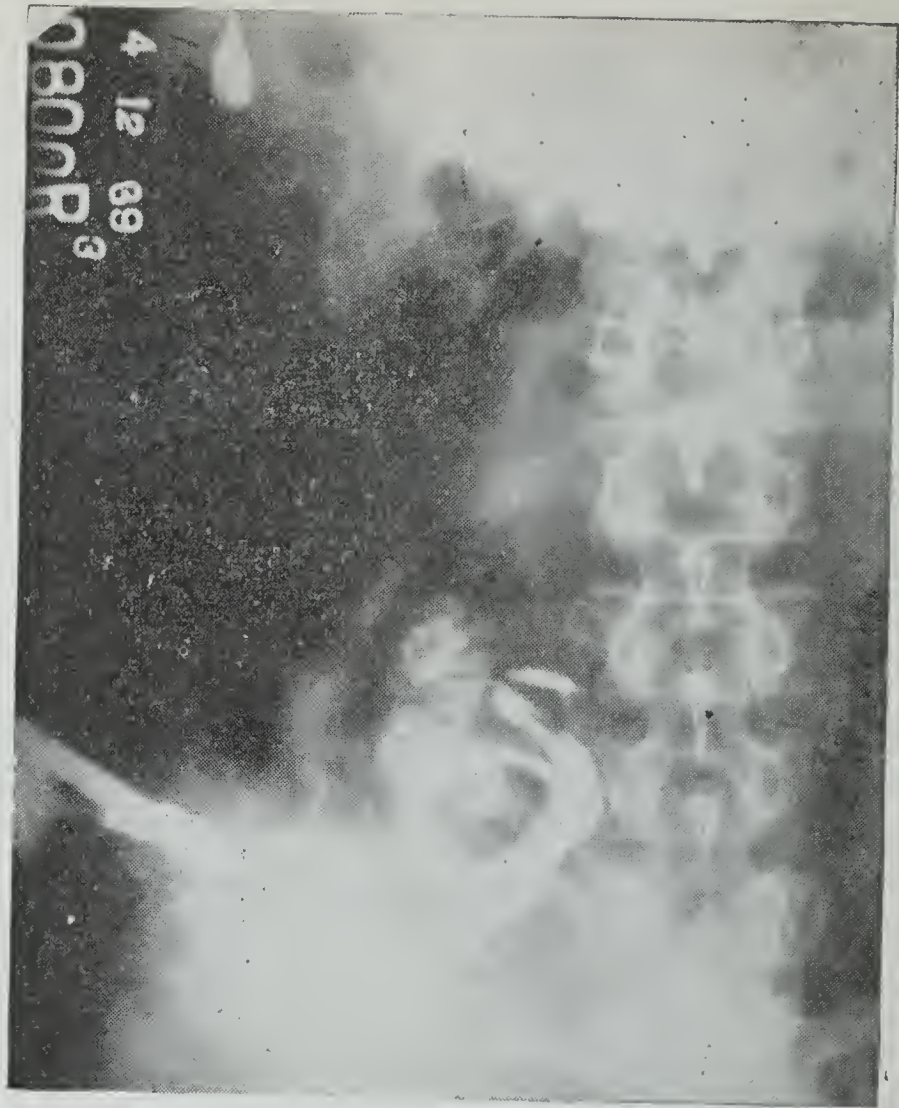


FIGURE II.

was operated upon last October. He had had previously a cholecystostomy nine years before. At operation he had the adhesions which one would expect. He had a small finger-glove shaped gall-bladder tremendously thickened and a thickened, enlarged head of the pancreas. We removed the gall-bladder. We thought that on account of the pancreatitis he should have the common duct opened and drained. It proved to be the smallest duct that I have ever encountered; the smallest T-tube which we have, which corresponds to about a No. 8 French catheter, could not be introduced, and feeling that drainage of the duct was essential, I merely placed a suture in each end of the incision which we made in the duct parallel to its long axis, put a Penrose drain down to the site so as to form a channel of escape for the bile, and closed the wound. The Penrose drain performed its function satisfactorily, so that shortly we were able to introduce a drainage tube to a point within the peritoneum itself.

This patient remained in the hospital five weeks, during which time all of his bile escaped through his external fistula. When I remembered the size of the common duct I felt he couldn't have any obstruction by stone, so I sent him home to the eastern end of the state where he remained another five weeks and came back with the story that all bile had escaped from the external fistula and that the stools had consistently shown an absence of bile.

(Fig. No. II.)

This film was then made by Dr. Johnson, the radiologist at St. Joseph's and you can immediately see the tremendous amount of comfort we derived from it. Here is the tube through which

hippuran was injected; here is the common duct, which you see is still quite small; here are the hepatic ducts entirely free, and here is the dye which has gone into the small intestine.

Previous to the use of this dye test we certainly would have felt that patient should be reopened. With this encouraging information we decided, of course, to let the man alone. Just what effect the hippuran had I do not know, but within twenty-four hours his biliary drainage ceased, and that was the last of December, and to date he has had no further trouble. It saved him certainly a useless, needless operation which would have subjected him to a considerable amount of danger and me to some humiliation.

(Fig. III.)

This patient too had drained for eight weeks following a common duct operation by my associate, Dr. Henry. Repeated examinations of the stools showed no evidence of bile, and here is Dr. Johnson's cholangiogram; here is the common duct, which is wide open. Stones were



FIGURE III

in the gall-bladder; none were in the common duct. Here is the cholangiogram at the end of eight weeks, showing the common duct wide open and the tube going into it, and what is still of great interest and comfort, the dye passing into the duodenum and as well into the duct of wirsung, in the pancreas itself, and needless again to say, when the tube was removed the patient healed without further trouble.

J. C. Bell, Louisville: I will limit my remarks entirely to the X-ray technic of these examinations. Neither the immediate or delayed type

offers any difficulties, certainly none which should preclude its use when indicated. The immediate form of examination requires close co-operation between the X-ray department and the surgeon but it can readily be performed and satisfactory films secured.

In the delayed examination the technic is easy and the results are most interesting. Personally I prefer to inject the opaque solution under fluoroscopic control for this method insures that the ducts will not be overdistended and also insures satisfactory filling of the ducts. When stones of an appreciable size are present, they usually can readily be seen with the fluoroscope and one may readily determine whether or not the opaque material is escaping from the common duct into the duodenum. It may be impossible to determine the latter point from films alone for the flow is usually not continuous even when there is no interference in the region of the ampula.

Films may be made either with the fluoroscope or in the ordinary manner employing the bucky diaphragm. I use the former method for very satisfactory films can be secured in any desired position with a very short exposure. In order to secure satisfactory films with fluoroscope, however, it is necessary to have a so-called "Quick switch" which will rapidly change the setting of the machine from the fluoroscopic to the radiographic.

SINUS DISEASE IN RELATION TO SYSTEMIC DISEASE

JOS. D. HEITGER, A. B. M. D.

Louisville

The systemic effects of chronic nasal sinus infections are barely mentioned in most special text books, while on the other hand diseases of the nasal sinuses occupy little space in the text books on general medicine. In the past twenty-five years our increase in knowledge regarding the pathogenesis and clinical manifestations of the toxæmias and secondary infections of chronic nasal sinusitis has gone far towards solving some difficulties and problems of general medical practice. Many pitfalls beset the subject of focal infection or sepsis and many problems still remain unsolved and controversial.

Our thesis is a far more complete and comprehensive subject of investigation than the title betokens, for in addition to a consideration of local disease our object

is to determine the influence of chronic sepsis in the nasal sinuses as a more-or-less prolific source of diseases involving almost every region of the body, and which we shall find comprise a proportion of the daily practice of the general physician and surgeon.

In the voluminous literature of the past fifty years dealing with the systemic complications of chronic sepsis in various parts of the body, the paranasal sinuses have been placed in a debatable position. Concomitance of infection and a disease is no proof whatever of their interdependence, and this applies especially in respect to pyogenic organisms, for inasmuch as normal nasal sinuses are sterile the flora of sepsis is indigenous in the skin, the mouth, intestinal tract, and many mucous membranes.

Hippocrates long ago emphasized the importance of treating the patient as a whole, not merely his signs and symptoms. One must be careful and not imagine focal sepsis in every ailment simply from discovering organisms of sepsis where they are always present, virtually as saprophytes only, until inflammatory reaction to infection evidences active virulence and produces symptoms.

In the literature a decided difference of opinion is shown regarding the importance of the nasal sinuses as foci of infection in the various types of systemic disease. As we enter this controversial realm we find that there are two schools of thought. Time and space will not permit a thorough analysis of the many valuable contributions on this subject, so we can consider only a few of the many articles defending the two varying issues regarding the subject under discussion.

Voltaire has stated that in any discussion it is well to define one's terms. A short review of some fundamental points in anatomy and physiology is in order before discussing pathology. The nasal sinuses consist of air cavities which connect with the nasal cavities, named from the bones in which they exist, namely, the maxillary antra, the frontal, the ethmoidal, and sphenoidal sinuses. On the outer wall of the nasal cavity are found the superior, middle and inferior turbinates. Between these turbinates are spaces named, respectively, the superior, middle and inferior meati. The various sinuses eventually empty into the middle and superior meati. Anatomically the frontal, antral, anterior and middle ethmoidal cells empty into the middle

meatus and are designated the anterior group of sinuses; the posterior ethmoidal cells and the sphenoidal sinus empty into the superior meatus, and in some cases the sphenoid empties into the sphenoethmoidal recess. At birth there are present rudimentary antra, two or three small ethmoidal cells, and the sphenoidal cells, which are very small, can be recognized. The frontal sinuses, as such, are not present at birth but are formed later as upward extensions of the anterior group of ethmoidal cells and are rarely distinguishable until the end of the first or early months of the second year.

Surgically the frontal, ethmoidal and sphenoidal cells are grouped as upper cells and the antra as lower cells, with the ethmoidal cells considered as the key situation or cross-roads of the sinuses.

There is no region of the body in which normal topographical relationships are subject to such frequent and almost limitless variation as may be presented by the accessory nasal sinuses. They remind one of the Irishman's definition of Bridge as "a game with no rules but a mighty lot of exceptions."

It cannot be too strongly emphasized that the nasal mucosa and sinus mucosa differ markedly in their structure and reactions to irritation and inflammation.

The mucosa lining the frontal, the ethmoidal cells and the sphenoidal sinuses is about 0.1 m.m. thick, or about the thickness of a cigarette paper. The mucosa of the maxillary antra varies from 0.2 m.m. on the lateral wall to 0.5 m.m. on the medial or nasoantral wall. The epithelium consists of a single layer of pseudostratified, ciliated columnar cells. Three layers of cells are found in the epithelium, namely, basal cells with round nuclei, ciliated columnar cells with oval nuclei, and goblet cells produced from the ciliated columnar cells. The goblet cells may be considered as unicellular glands which produce mucus.

The epithelium rests on a basement membrane under which we find the subepithelial connective tissue constructed, roughly, in three levels consisting of the superficial stroma (capillary level), the loose intermediate stroma (glandular level) and the more compact deep stroma (vascular level). The next layer is the periosteum which is of two types, a definite and well-formed type with better resistance, and a rudimentary or poorly-formed type with less resistance. Below the subper-

iosteal level the bony wall of the sinus is found. The nose is a wonderfully adaptive functional mechanism to withstand the exposure to which it is subjected.

Patients often complain of symptoms which are not symptoms of pathological change but are only evidences of normal physiology, responses of the structures to changes in the environment. The nose possesses a four-fold function: to warm, to moisten and filter inspired air, and to smell. The efficiency of these processes depends largely on the function of vasomotor control which regulates the secretory and circulatory mechanisms, resulting in an automatic flushing cycle of the mucosal surface. This produces the mucous blanket which facilitates the action of the cilia comprising the first line of defense of the nasal and sinus mucosa. This mucous blanket is completely changed about every half hour.

Mild catarrh is often a combination of anatomic obstruction and physiologic hyperactivity.

The healthy nose is normally free of excess secretion. There is no complaint of dropping in the throat. When nasal discharge is produced in excess we are dealing with an allergic irritation or sinus infection. Allergic irritation produces a watery discharge and when the discharge becomes purulent or mucopurulent we are dealing with infection. With the exception of a few conditions of nasal obstruction, leucocytes are not produced in sufficient number to discolor nasal secretions, so that from a practical clinical standpoint mucopurulent or purulent secretion always comes from the nasal sinuses. Such discharge and infection go together. It may remain watery for long periods but if repeated observations are made sooner or later a yellowish discoloration of the discharge will, at intervals, appear.

Examination of the nose may disclose no visible secretion at times because primarily the discharge is not in the nose. When a chronic, thin, watery discharge is present it is at times difficult to rule out sinus infection, especially of the sphenoidal group. All modern methods of diagnosing allergy must be employed in making a differential diagnosis. They are frequently disappointing in their results, so we must often revert to the procedure of repeated examinations over long periods of time.

The fundamental pathological conditions

consist of exudation, infiltration, proliferation and degeneration. The alterations produced by exudation, infiltration and proliferation, if slight, are frequently reversible and capable of return to normal. However, when degeneration has occurred the morbid changes are irreversible and return to normal is impossible. This latter condition constitutes the criterion of chronicity.

Chronic nasal sinusitis in relation to systemic disease has received the greatest attention in the literature in relation to arthritis, asthma, nephrosis, cardiac conditions, lung conditions, mental disturbances, gastrointestinal tract and eye lesions, in about this order in frequency.

As stated earlier, there is a marked divergence of opinion in medical literature in regard to the etiologic significance of chronic sinus disease to systemic disease. Among those supporting the positive view we find the communications of MacKenty, Hurd, Faulkner, Craig, Burgess, Kistner, Potts, Watson Williams and Pickworth of England, Snyder, Fineman and Traeger. Those supporting the opposite view include Wood, Mullin, Anderson and Owen. Williams and Slocumb assume a more or less middle position in that they do not support the conclusion that sinusitis is the principal focus of infection, while at the same time they assume that the sinuses cannot be ignored as possible foci of infection, especially in infectious arthritis.

Anderson reviewed 400 consecutive cases of suppurative sinusitis. In 200 cases of sinusitis without other foci of infection he found arthritis coincident with infection of the upper respiratory tract in only three cases, and bronchitis in one. In the other 200 cases in which other foci of infection were present he found 52 in which associated diseases and symptoms that might have been caused by focal infection. He therefore concludes that sinusitis was not an important factor in focal infection as compared to the teeth, tonsils, prostate gland and other foci. He recommended that in a patient with nose normal in clinical examination, and with a history negative for diseases that could be referred to the nose, any exploration involving mutilation of the nasal membranes is not justified. He also concluded that existing infection of the nose and paranasal sinuses should be treated in the most conservative manner consistent with the complete eradication of the disease.

Snyder, Fineman and Traeger made a

routine detailed stereoscopic roentgenologic study of the nasal sinuses in 386 consecutive cases of chronic arthritis. In 124 cases, or 32 per cent, the sinuses looked clear. In 262 cases, or 68 per cent, the roentgenograms revealed changes indicative of sinusitis. The changes were of slight degree in 126 cases, of moderate degree in 102, and of marked degree in 34. The degree of arthritis bore no relationship to the degree of involvement of the sinuses.

Of the total group, 126 patients were referred to the rhinologists for a clinical examination. In 93 cases, in three of four cases, the clinical examination demonstrated corroborative evidence of sinusitis. Only 16 of the 93 patients were aware of the fact that they harbored disease of the sinuses. In the remaining 77 cases the sinusitis was of the "silent" or asymptomatic type.

Rhinologic treatment of these patients resulted almost invariably in marked clinical improvement of the arthritis.

Hurd reviewed this group of 386 consecutive cases of chronic arthritis in relation to therapeutic results and reached the following conclusions: Nasal sinus involvement is an important factor in chronic arthritis, sinus involvement often gives few or no symptoms and might be termed "silent" sinusitis; that infection in this short series of cases is not so important as the sinusitis; that most of the cases have no frank purulent nasal discharge; that best results are obtained in sinus infections by surgical measures.

Trevor Owen, of Toronto, Canada, feels that foci of infection are the result of a constitutional defect rather than an additional cause, and that where there is really a focal source of infection the teeth come first, the tonsils a poor second, and the sinuses a most unsatisfactory third. He does not believe that chronic sinusitis has caused inflammatory lesions in the lung parenchyma or the heart muscle or valves; that it has anything to do with gastric or duodenal ulcer, cholecystitis, nephritis, nephrosis, pyelitis, or primary or secondary anemias.

Potts, of Omaha, states that the work done by him and his associates at the University of Nebraska College of Medicine has led them to the conclusion that infection of the nasal accessory sinuses plays a very important part in general systemic diseases and that there is scarcely an organ in the body that they have not found affected.

Watson Williams, of England, is decided-

ly of the same opinion as Potts. Pickworth, of England, showing startling effects of sinus conditions in relation to mental diseases. Williams and Slocumb, of the Mayo Clinic, studied a group of 100 cases of arthritis in which detailed rhinologic examination was performed. There were 42 cases in which roentgenologic examination indicated changes in the paranasal sinuses and in which the condition might have been caused by infection. Of the 42 patients, 21 presented roentgenologic evidence and a history of symptoms of rhinitis. In 20 cases of the whole group of 100, clinical investigation yielded definite evidence of suppurative disease of the paranasal sinuses. In 17 cases in which roentgenologic evidence of sinusitis was obtained clinical investigation did not yield evidence of sinusitis. In 15 cases operation directed toward eradicating infection was advised. Twelve were operated and three refused surgical therapy. Six of these cases experienced permanent improvement, but of the six, four had tonsillectomy performed at almost the same time. One other patient experienced transient symptoms after operation on the sinuses. They state that it would be interesting to know what the incidence of positive results would be in roentgenologic examination of the sinuses in an unselected group of the general population. It is possible that in 42 per cent of cases suggestive changes would be found. They conclude that if disease of the sinuses is found an attempt should be made to eradicate it but too optimistic an outlook as to the results of this type of therapy should be avoided.

It is difficult to understand the marked differences of opinion held by writers in different sections of the country as to the etiologic significance of sinusitis in systemic disease. There are many cases of paranasal sinusitis in which systemic disease never develops. Similarly there are many persons who harbor for years dental, tonsillar, prostatic, endocervical and other infectious processes who do not develop systemic disease, while others with the same types of infection do develop systemic disease.

There is always the danger of absurdity as well as academic unsoundness in compiling statistics wherein controls and variables are unknown, and policies and practices determined from such statistical studies may be ill advised. With so many unknown variables and controls in the focal

infection hypothesis most of us must construct our conception of the term from our personal experiences plus the written experiences of others.

Not all cases of chronic ill health can be approached by the focal-infection route. We must look at the whole patient and realize, with Alvarez, that there are many in his classification of the "constitutional inadequates" who can never be cured by surgery directed toward the eradication of a silent possible focus of infection. Aside from this our failures can be attributed largely to inability to locate the true focus, removal of the wrong focus, or incomplete removal of the right focus.

DISCUSSION

M. C. Baker: I think nature does a splendid piece of work in walling off from the system bacterial infection arising in the sinuses. If this were not true, instead of the average person losing a few hours or days out of each year from a cold or sinusitis, this same person would lose weeks or months. Nature does a wonderful piece of work. Absorption does take place from the sinuses. We see this in people, who following a cold, go into an apathetic stage, unable to concentrate and do work properly at the office. It shows that absorption takes place. Everyone of us specialists have seen cases of nephritis, rheumatism, hypertension remarkably improved following a proper sinus operation and treatment of the sinuses. I think just as the pediatrician considers it important to routinely examine the middle ear in a young child with unexplained high fever, just so it is equally important for the general practitioner to investigate the sinuses in systemic conditions and not neglect this one source of toxins. Although they are not always involved, they are at times and should not be overlooked.

Charles K. Beck: Such an excellent paper as this ought to call down a good deal more discussion. Dr. Heitger has gone into a great deal of detail, but had to rush over the latter end of it because time was growing short.

In this climate we see a great many people who have trouble with sinuses. The wonder is it does not cause more systemic disturbance. I wonder we don't see more cases we can pin on the sinuses. There is a very good physiological reason for this. All these sinuses have a normal opening through which they drain under normal circumstances, and through which they are aerated. As long as this keeps up we don't have much systemic disturbance. Whenever the normal outlet is blocked there is retention of secretion which accumulates. There can be no interchange of air. By shrinking the membranes and establishing drainage the patient gets relief. If the condition has not gone too long, there is return to normal.

associated with colds. If the occlusion of the normal outlet of a sinus keeps up too long, there is retention of secretion, superimposed infection, and then possibly systemic disturbance. If this keeps on long enough it is just as reasonable to suppose toxins are absorbed in the general system, producing focal infection, as from teeth, tonsils or prostrate.

Jos. D. Heitger (in closing): One point in particular requires emphasis, from the standpoint of the general practitioner i. e.: Any patient with the symptom of dropping in the throat, or who is using two or three handkerchiefs a day, very likely has a type of sinus infection. If the discharge is clear and remains so, the sinus disturbance is probably an allergic basis. If the secretions are colored it usually means infection. Allergy and infection may coexist. In that event a great deal of study of the case will be required. If you can find a few things to which the patient is allergic it is a great help. Many patients are relieved by changing cosmetics. A firm in Chicago has placed a trial package of cosmetics, non-allergic in character, on the market, which costs 25 cents. Several of my patients have used one of these for several days and in that way realized that most of their symptoms were the result of cosmetics to which they were allergic. The main thing in sinus disease is to determine whether it is caused by allergy or infection, or whether you have allergy and infection. Many of the patient's symptoms may be reduced to the point of getting a so-called practical cure. From a pathological standpoint, when degeneration occurs we must depend largely, for therapeutic results, on surgery. It does not do all that we wish, but in most instances the patient is relieved of the greater portion of his major symptoms and is usually satisfied and grateful for the results obtained.

It is high time that we get away from the use of the words "radical" and "conservative" and in their place use "adequate" and "complete." So-called conservative surgery will never obtain results where the ethmoid cells have grown out past the plane of the lamina papyracea which forms the outer wall of the ethmoid capsule and the greater portion of the inner wall of the bony orbit.

In such cases the ethmoid cells grow out over and under the orbit and an attempt to adequately drain these cells by so-called conservative surgery is absolutely futile. Recourse to ill-advised and incomplete surgery is frequently the cause of the oft heard expression, "Once a sinus operation always a sinus operation." Surgery of the nasal accessory sinuses should be approached with caution. Careful diagnostic study, coupled with allergic and metabolic investigation, should determine the type of therapeutic approach necessary in the individual case. If surgery becomes necessary

DUPUYTREN'S CONTRACTURE

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INTRODUCTION: Things are not always what they seem to be. A finger contracted in flexion is not necessarily the result of arthritis, fracture deformity, fibrosis of a tendon, or skin contracture nor is it always an affliction to be borne patiently without expectation of satisfactory correction. An appreciable number of such flexion deformities will be due to a thickening and shortening of the palmar fascia, a disease generally designated as Dupuytren's contracture and recognized as being rather amenable to treatment. While Sir Astley Cooper was probably the first to realize the pathology involved, Dupuytren independently reached the same conclusion and what is more important devised and carried out the operation which is still the basis of modern-day correction of the deformity. Dupuytren, the most distinguished French surgeon of a hundred years ago, performed his operations at the Hotel Dieux where he was chief surgeon for many years and where he did much other original work.

CLINICAL DESCRIPTION: A clinical description of the disease will make the anatomical and pathological considerations much more interesting. The patient is usually a male at middle life or beyond. He is generally one who has subjected his hands to considerable trauma at work or play. While the onset of the condition may be evidenced rather suddenly with redness, swelling, tenderness and pain, more commonly there is the gradual development of a nodule in the ulnar side of the palm of the hand near the distal end of the fourth metacarpal bone. This nodular formation as a rule slowly extends towards the radial side involving more of the palm and projecting towards the base of the fingers producing a contraction first of the fourth finger and then the third and fifth. The index finger is rarely, if ever, affected and the thumb never. The skin is involved early, wrinkles, and may become quite adherent to the palmar fascia. The subcutaneous fat disappears making the induration seem even firmer. The contractures become cord-like but the underlying tendons are not included in the process and further flexion is unimpaired. Dupuytren's contracture is dif-

ferentiated from all other types of contracture lesions by the fact that the proximal joints of the fingers are in flexion and the middle and distal phalanges are on a line, with the distal phalanx in slight extension. While the right hand is usually involved first, most patients in time have bilateral lesions and considerable disability may result. The course of the disease is not always as progressive or rapid as the description just given might imply. Frequently there are regressions and further the process may halt at any point but a slow gradual extension is the usual finding.

ANATOMY: Let us consider now the structure of the palmar aponeurosis. It is an irregular triangular sheet of fascia found under the skin of the palm of the hand. Its base is directed towards the metacarpal-phalangeal joints and its apex towards the wrist, continuing with the palmaris longus and the anterior annular ligament. In the absence of the palmaris longus it may fade into the antibrachial fascia. Laterally it blends into the thin thenar and hypothenar aponeuroses. The longitudinal fibers are arranged into pretendinous bands which may attach themselves to the proximal and middle phalanges, extend into the deep interosseous fascia or even perforate through to the dorsum of the hand. Those processes to each finger consists of three parts, a medial and two lateral which surround the tendon sheaths, digital nerves, and peripheral vessels. The transverse fibers are found under the longitudinal ones and form transverse bands over the heads of the metacarpals.

PATHOLOGY: The pathological processes



Figure I.
Contracted Ring Finger before Operation

which change this normally rather indistinct tissue into an easily recognizable band-like structure are those of local hyperplasia of the connective tissue cells. This causes the formation of hypertrophied fibrous bands with scar tissue in the fascia, adjacent connective tissue, and fatty subcutaneous structures resulting in contraction of the fingers. A frank inflammatory change is not seen but occasionally neuro-matous tumors following injury have been described. The plantar fascia and other similar tissues may show corresponding changes in the same patient.

ETIOLOGY: There is still much speculation as to the causes which initiate this disease. For many years repeated local trauma was generally accepted. Lately it has been discarded for several reasons. These include the late onset after middle life, the fact that the condition is just as frequent in mental workers, the bilateral distribution of the lesion although most tools are used principally with one hand, the initial appearance of the nodule on the ulnar and least traumatized side, and the observation that while trauma is common Dupuytren's contracture is rare. Other causative factors include stasis, fibroplastic diathesis, ulnar nerve lesion, heredity, dorsal sympathetic ganglion, irritation with excitation resulting in atrophic disturbance at the periphery, biochemical or metabolic disturbances, degenerative processes incident to age, trophic neurotic lesions, focal infection, vasomotor changes, etc.

A likely explanation would be that the disease is not a definite entity, that it represents a biochemical or metabolic disturbance akin to that in gout or rheumatism and that focal infection and trauma may be contributory factors.

TREATMENT: The type of treatment to be employed will depend somewhat on the causative factor accepted. Manual manipulation and forced extension are of no avail. Operative procedures on the tendons are not indicated since those structures are not involved.

X-ray therapy for the lesion has its advocates but hardly seems reasonable in view of the fibrosis that such treatment usually brings about when used elsewhere. Certainly all foci of infection should be eliminated and severe trauma to the hands avoided. If the presence of sympathetic ganglion irritation can be established dorsal ganglionectomy would seem logical. Generally however the only effective treatment is the wide surgical excision of the palmar



Figure II.
Extension of Ring Finger Obtainable after
Operation.

fascia. Simply incising the fascial hands is ineffective. There is some discussion as to the proper time for operation. Those favoring early operation emphasize that the procedure is easier to do then and that because of less established changes a more physiological hand can be obtained. The advocates of late operation direct attention to the fact that the contractures may not progress to such disability that operation will ever be necessary and that if operation is done too early and there is subsequent progression of the disease a second operation may be required. Usually the patient settles the issue by postponing consultation until disability is present.

The excision of the fascia may be done under regional block or general anesthesia. A tourniquet should be used to insure a bloodless field and resulting ease of identification of peripheral nerves and vessels. It should, however, be released occasionally as the operation may consume a rather long period of time. All types of incisions have been employed satisfactorily but one following some of the creases of the hand seems more desirable. Strict asepsis and hemostasis are essential in securing a good result. The dissection and excision of the fascia should be done in a systematic and complete manner, skin incisions being made along the proximal ends of the fingers when necessary. Every effort should be made to avoid button-holing the skin. Sliding the flaps and undercutting them widely

will usually bring about apposition without too much tension but rarely a graft may be necessary. Silk or dermal sutures are preferable and no drain is employed. A pressure dressing should be applied and a padded extension splint used for about three weeks.

CASE REPORT: This excision type of treatment was used recently for a patient who presented rather typical findings. He was forty-six years of age and while the most labor he does now is to drive his car he was rather active athletically when younger. Several years ago he first noticed a nodule on the ulnar side of the palm of his right hand. As the process extended there similar changes appeared in the left hand but have never been so marked. While he had rather definite deformity of his right hand because of the contracted ring and middle fingers he was still able to drive his car but this winter for the first time was unable to put on gloves and came for treatment because of that. His pain was minimal. He obtained a satisfactory result in that he is now able to wear gloves and has a good range of motion. His extension is not complete because of some tightness of the skin and it is possible that a graft might have been desirable.

SUMMARY

In conclusion this discussion of Dupuytren's contracture may be briefly summarized. The disease is evidenced by a flexion deformity of the fingers resulting from thickening and shortening of the palmar fascia. Only the proximal joints of the fingers are flexed. The tendons are not affected and move freely as far as permitted by the contracture. The disease is more common in middle aged men but the exact causative factor for the fascial change is not known. The best form of treatment is the complete surgical excision of the palmar fascia and its prolongations to the fingers. Good results are to be expected but care must be exercised to avoid injuring peripheral vessels and nerves near the metacarpal-phalangeal joints. An illustrative case has been described.

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DISCUSSION

Harry Goldberg: In my opinion, early diagnosis and operation are essential for a good result. As a rule, the condition becomes progressively worse. Operating at a later stage, one is apt to button-hole the skin. In the early stages, one can exercise the palmar fascia more readily and with less difficulty.

Another point, avoid a longitudinal incision in the palm. There may be post-operative contracture from the longitudinal skin incision. One should utilize the transverse palmar creases for skin incisions, and if necessary a longitudinal incision can be made along the ulnar border of the hypo-thenar eminence. At times incisions in the finger creases can be utilized for the digital extensions of the palmar fascia.

Often times in the post-operative treatment, it may happen that the involved fingers cannot be straightened without difficulty. One can then flex the wrist to relax the flexor tendon sheath and apply a splint for three weeks until the wound heals. After that, a splint should be worn at nights to prevent recurrence of contracture.

David Jones: The condition is certainly one which is quite troublesome both to the orthopedist and to the physical therapist. In former years relief in this condition was attempted through conservative measures such as heat and massage with splinting of the hand. These measures proved of no avail. Dr. Hancock has advocated early diagnosis and early operation with the statement that the longer surgical intervention is delayed the more contracture occurs and the more difficult the procedure is to carry out. He further states that the tendons are not affected in the contracture. Certainly these statements are quite true, and I wish to emphasize that while the primary contracture is in the palmar fascia there is usually some secondary contracture in the flexor muscle so that following surgical intervention we frequently find a flexion contracture persisting that is no longer due to the palmar fascia but is due to fibrosis within the muscle. As a consequence, we find that it is frequently advantageous to apply a volar splint which will maintain the amount of extension that can be obtained. This of course should be followed by physical therapy, usually in the form of heat and massage with exercises to develop the extensor muscles with ultimate relief of the contracture.

Splints not only help to maintain extension but serve to prevent further contracture due to fibrosis within the muscle while physical therapy helps to overcome this fibrosis. Through develop-

ment of the extensor muscles the condition is obviated.

In early conservative treatment of this condition negative galvanism was used over a long period of time in an attempt to soften and relax the scar tissue contracture. This did not solve the problem since the contracture seemed to occur more rapidly than this method could relieve. Hence early surgery should be the procedure of choice in this condition with physical therapy as an adjunct to treatment post-operatively.

J. G. Sherrill: Many of these cases have come under my observation but received little encouragement. I saw this patient before Dr. Hancock saw him and told him this was the field for the young surgeon.

It seems to me that these cases occur regardless of the amount of trauma. Possibly they are trophoneurotic conditions. I have in mind a father-in-law and son-in-law who never did anything to traumatize their hands. Both had it and lived to a good age without any trouble.

The pathology and cause are not fully explained. That is where we have to go to get the cure. There is involvement of tendons by contraction of the fascia over them which draws them down. I have seen the fingers come clear down to the palm of the hand. Dr. Hancock has handled the case beautifully.

We might look for deficiency of vitamins in the early condition. This condition may be largely circulatory. Increasing the circulation may help solve the problem.

R. Arnold Griswold: I recently saw a case in a physician, which may throw new light upon the subject. This man had a small pea-sized nodule just under the skin of the palm of his hand. There was no indication of Dupuytren's contracture. The nodule was removed and pathological diagnosis was neurofibroma. Later, typical Dupuytren's contracture started to develop. Dr. Mason has seen this tissue and considered it typical of the fibrosis found in Dupuytren's contracture. However, the pathologists at Northwestern agreed that it was neurofibroma.

I think that Dr. Sherrill may be correct in ascribing this condition to neurological changes.

R. D. Mansfield: Dr. Hancock mentioned heredity as a possible factor in the pathogenesis of this condition, and I believe more emphasis should be placed on this point. In the past year and a half three cases have come under my care in whom heredity seemed to play an important role. The fathers of two of these patients also had Dupuytren's contracture, and the paternal uncle of another case had the condition.

I have not found it necessary to make as extensive an incision as has been described this evening. I have found that by incising the distal transverse palmar crease, the transverse creases

at the bases of the fingers, and the crease along the thenar eminence, the skin could be tunnelled and by meticulous blunt and sharp dissection the palmar fascia can be adequately removed. By following this technique I have had no need for the use of skin grafts.

Herman Mahaffey: I feel it is important to get a wide incision and get all the scar tissue removed. In a great many cases which have gone on too long some skin is adherent to the fascia and is hard to dissect loose. If the skin is buttonholed, it is easy enough, in a great many cases, to do a skin graft. Use a flap graft and allow it to take hold before you cut it loose. Preferably we try to locate some area which is in a proper position so that we do not have hair covering the skin to be grafted. One objection to the graft is that these patients will usually complain of some numbness following the operation,—sometimes as long as three years following the graft.

Charles E. Wood: We all enjoyed Dr. Hancock's paper. I think he is to be congratulated on his results. I would emphasize one important point. While early operation is definitely indicated, wide exploration and complete dissection of the fascia should be done even though involvement is apparently slight.

THE FRACTURED HIP

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Fracture of the hip is always a matter of grave concern to the surgeon. In the majority of instances it occurs after the age of 60 in debilitated or senile individuals. Often it is the death knell for these old people, when shock, pneumonia, bed sores, irrationality and general senility relieve them of their discomfort. Of those who survive the initial shock and confinement, a large percentage are invalided due to a disabling non-union. Interest in the treatment of the fractured hip shows no evidence of waning. The ingenious appliances and mechanical devices seem to show an increased interest in obtaining a better result and stabilizing some method that will solve, what Kellog Speed calls the unsolved fracture. Very little progress was made in treatment until the beginning of this century. The one principle handed down from Hippocrates of reduction and immobilization remains today as the essential principle. We can well see how he understood the mechanical principle (fracture treatment) by his descrip-

tion of a case of fracture of the thigh.

In a fracture of the thigh, he drove a stake in the ground and padded it with cloth. The patient was placed with one leg on either side of it, so that his own weight fixed his body against the immovable stake. Strong men pulled on both legs until they were of equal length, while he (the doctor) manipulated the bones in position. A padded ring was placed below and above the fracture and long springy twigs from the Cornel tree were bound about the leg and the ends forced into the padded rings at the ankle and above the fracture. Such are the principles today, with some refinement in technic. Many of our new instruments and appliances are not so original, the ideas having their origin when culture and art were at their zenith in Greece, during the 5th Century. Some one made the statement when he thought he had a new idea, he looked up to see which Greek author had expressed it best. There is doubt whether Hippocrates distinguished the difference between fracture of the thigh and fracture of the hip.

Ambrose Pare, who followed closely the teachings of Hippocrates, was probably the first to describe fracture of the hip. He records seeing a woman with an injury to the hip, and on finding one leg shorter and the trochanter prominent thought it was a dislocation. He pulled and manipulated the leg until it was the same length as the other. Two days later, he revisited the patient, and found the leg again short and turned out. On removing the bandages crepitation was felt. He reduced the fracture and applied splints and spica bandages. He fixed an arc at the foot to keep the bed clothes from pressing on the toes and had a cord suspended from a beam over the middle of the bed, so that she could raise herself with her arms (Clark). We are not so original and modern after all.

Very little progress is recorded until the 11th and 12th Century, that the Arabian school came into prominence and Avicenna practised open reduction for mal-union. He made an incision over the fracture and scrubbed the old callous away, breaking and resetting the bone.

Guy de Chauliac, the French surgeon, is recorded as the outstanding surgeon of the 14th Century. He described splints, extension, a cradle in which the limb rests evenly and firmly, a cord hanging over the bed, and a mattress perforated so that patient may go to stool (Clark). Such men as Guy de Chauliac, as German Brunschwig,

Italian DiVigo, English, Gale, Clowes, Lowe, Bradwell and Banister, etc. followed. Each of his day wrote extensively of fracture, treatment, each age quoted Hippocrates and made use of principles advanced by this great Physician: Extension, reduction and fixation or immobilization.

The mechanical principles of extension and fixation seem to have been recognized in every age, and by every Nation. The Indians used wet raw hide molded to the limb while wet and pliable. Birch bark soaked until pliable was lined with a soft clay, and adjusted to the leg and allowed to dry, a forerunner of our plaster cast. Excavations reveal that approximately 50 per cent union was obtained.

It appears that little progress had been made so far as results were concerned, until the advent of the Whitman-Leadbetter technic of reduction and immobilization, which consisted of traction, inward rotation and wide abduction. At present time this is probably the most popular method of treating the fractured hip.

ETIOLOGY: The causes of fracture of the hip can be stated in a very few words. First, atrophic changes taking place in the neck of the femur as the result of age and nutritional factors. and second, catching the foot or toe, thereby fixing the foot with the body moving forward or twisting, throwing the entire weight on one hip. The bone breaks and the patient falls. There are other factors such as pathological conditions which cause atrophy or degenerative changes in the bone. But the majority of fractures of the hip occur in women over 60 years of age, whose lack of exercise has resulted in certain atrophic changes in the bone.

Metastatic carcinoma is a not unusual contributing cause, a painful hip following a history of cancer, should be looked on with suspicion, an x-ray made.

DIAGNOSIS: Ordinarily the symptoms of fracture of the hip are so typical, that no difficulty is presented in making the diagnosis. But there are exceptional cases in which the patient can walk, where the break, though complete, there is no separation of fractured ends, and the patient may go days, using a cane until some little twist or off balance will result in a complete separation. We may or may not have shortening, outward rotation and elevation of the trochanter and still have a fracture of the neck of the femur.

The diagnosis should be confirmed by

the X-ray, with pictures made both anteriorly and laterally and of the well hip. The X-ray not only confirms the diagnosis but reveals the relation of the structures, a knowledge of which is essential to a proper reduction.

TREATMENT: From antiquity, the method of treatment has been the principle of reduction by extension and internal rotation. The technic only has changed. The most practical, efficient apparatus for maintaining extension until union takes place was devised by Dr. Buck of England. Buck's extension was evidently the most popular method until the plaster technic was described by Royal Whitman in 1904. The Buck's extension with the addition of the Kirschner pin instead of adhesive plaster is still advised in such cases as cannot be confined in a plaster or in the very fat patient, where it is difficult or impossible to apply a cast well molded to the hip and groin. The objection to the Buck's extension is the not consistent equalized weight pull, and in turning the patient for after care. Too much motion takes place in the fractured surfaces, breaking up reparative material resulting in fibrosis or non union. Though some excellent results are obtained by Buck's extension, Leadbetter says that one who relies on sandbags and Buck's extension is guilty of neglect and carelessness.

Whitman's technic of extension, inward rotation and abduction, fixing the leg in so called y position and application of a plaster spica has been recognized all over the world as the standard form of treatment.

Surgeons who have had the most experience in this field, are of the opinion that it is still the method of choice in the majority of cases. McAusland and Lee of Boston, report 250 cases of fracture of the hip treated by the Whitman method. 159 of which were fractures of the neck of the femur, with the following result: 61.5 per cent good, 18.7 fair, 20.8 per cent poor. X-ray showed 58.3 per cent bony union in 60 cases available for X-ray study. 20 per cent died within the 6th month period following reduction. The simplicity of this method and the high percentage of bony union will be the treatment of choice until one as simple and as applicable can take its place. (McAusland).

It has been the prolonged immobilization and rest in bed over a period of months that has stimulated interest in a shorter convalescence, by mechanical fixations or open reduction. The Leadbetter technic for

applying the plaster cast has made it possible to get some of these cases on crutches in one or two weeks, with painless weight bearing.

Kleinberg, of New York, reports 24 cases with early weight bearing, treated by the Whitman method. However Henderson of the Mayo Clinic states that "If patients who have fractures of the neck of the femur, can be assured of a better chance of a good result, with no greater mortality, by the operative method, they should be operated on, and that at the Clinic the mortality is no higher and 65 per cent bony union obtained." Whitman reports 65 per cent bony union on patients under 60 and 54 per cent over 60. The controversial point is, close reduction or operate.

The rapid adoption of the operative treatment has been due to the very early restoration of function, eliminating the long confinement, stiff joints, etc.

Hey-Graves says, that "the patient who we were accustomed to think of as languishing in bed for months, is now able to get up within a week. The whole prospect is changed from one of gloomy resignation to one of confident optimism."

Much has been written on the different types of operative fixation and many individual technics. The one in most general use is probably the 3 flanged Smith-Petersen nail. However there are failures and the failures are due to (1) infection, (2) inaccurate position of the nail, (3) too early weight bearing and (4) as stated by Hoffheinz, Hystrom, Osten, Schmid and Watson Jones. To the use of an inferior metal (Barbara Simpson), (5) poor circulation.

Sanderson reports 53 cases of Smith-Petersen technic without a death. Thornton 32 cases, with 100 per cent union and no deaths. Watson Jones, 29 cases, 79 per cent union and in 35 cases, with the lateral approach (advocated by him) obtained 91 per cent bony union. Boehler 39 cases, 38 bony union. Campbell 19 cases, all with bony union. Though such excellent results are reported with the Smith-Petersen nail, yet many other methods have been described and used with good results; spikes, nails and wires as recommended by Caldwell, Calton, Gaenslem, Ransohoff. A lock bolt by Cleary and Morrison. A cork screw bolt by Lippman. The autogenous tibial graft by Albee and others, and the multiple stainless steel pins by Moore of Columbia, South Carolina.

It is to Moore's technic that I wish to

speak and report several cases of fracture of the neck of the femur that were treated by his method. The simplicity of it appealed to us. The reduction of the fracture and fixation with three steel pins can all be accomplished under local anaesthesia or a very low spinal, which does not seem to cause any shock if kept low. If the operation is done under local the patient can flex both knees and thigh as soon as the operation is complete. If under spinal the patient may sit up in bed and let feet hang off with perfect comfort, when effects of spinal have worn off, or may sit in chair and eat meals next day or be placed in a wheel chair or on crutches, not permitting any more weight bearing than balancing the foot. No plaster nor brace of any kind is needed.

The same accurate apposition of fracture is as essential as in any other method. Like the Smith-Peterson when fracture is reduced and pin or pins inserted a blow is sometimes necessary to assure impaction, which is essential to early re-establishment of the blood supply. Good union is dependent more on perfect reductions and fixation, than by the method used. It is to overcome the long stay in bed where from 20 to 30 per cent die and the encouragement to the patient that they can be up and about. The early restoration of function, elimination of general atrophy and debility give the patient a happy outlook.

Rarely should it ever be necessary to adopt the idea that on the very old, to treat the patient and forget the fracture. In the operative treatment one can best treat the patient by reducing and immobilizing the fracture. For after reduction and fixation, there is very little pain, and drugs to control pain which are poorly endured by the aged are not necessary.

CONCLUSION: Each patient suffering from a fracture of the hip constitutes a personal equation, as in each case the general condition of patient must be taken into account. The nutrition, the cardiovascular factor, the physical reserve, etc. In other words how much more can this patient endure? It is on this basis that the type of immobilization must be decided. Whether a Buck's extension, a Whitman's abduction and plaster or an open reduction and mechanical pinning. Regardless of the Leadbetter assertion that he who employs Buck's extension and sandbags is guilty

of neglect, excellent functional results have been obtained by this method.

If the patient is not suffering from advanced senility, where confinement to bed and encased in a plaster cast would not be too exhausting, the Whitman's technic gives as high a percentage of good bony union as any method now in use.

It is the open reduction and fixation which saves the ones with low reserve by making it possible to get them out of bed and in a wheel chair as soon as fixation is accomplished, which can frequently be done immediately. However it is generally advisable to depend on Buck's extension for a few days to control pain until patient has recovered from shock. As a large percentage of the senile cases die within the first week, any type of fixation would not save them. When reduction and immobilization can be done under local anaesthesia, the assurance of getting out of bed in a day or so, and the hope offered of not being a bed ridden invalid, gives the patient a mental and physical reserve, which helps to carry them over the first few days of hopelessness, when they are praying to die and be out of misery.

DISCUSSION

Walter Hume: Just now there is a wide, and I believe a widening, current of interest in the internal fixation of fractures of the neck of the femur. In the past five years no less than 200 articles on this subject have been added to the literature. Three major schools of thought are represented. One school favors the plaster-of-paris spica, another the closed or blind internal fixation and a third reduction and fixation by the open method, by arthrotomy. The old maxim which said in very bad cases "treat the patient and let the fracture go" and the old methods of treatment such as sand-bags and pillow trough, sand-bags and traction, and suspension and traction are mentioned now usually only to be condemned. Apparently a revision of our methods of handling fractures of the hip is under way. And, though in all our work we should be bound to the rule of safe and sound conservatism, with an absolute minimum of human experimentation, we must keep abreast of really fruitful changes. All this is by way of saying that Dr. Allen's subject is well timed and of unusual interest.

The essayist's historical references are interesting. They conduce to humility on our part. No race, no nationality, no generation has had a monopoly on brains. Principles are changeless.

His remarks on the etiology of this condition

leave little for discussion. But I wish, in this connection, to mention Dalby's interesting report of 14 cases of spontaneous fracture of the neck of the femur following irradiation for pelvic malignancy (*Am. J. Obst. and Gyn.* 1936, 32: 50). Nine of these 14 fracture cases had non-union. Do higher voltage and increased intensity and duration of treatments now used result in increased friability of bone? The thought may be worth something.

Diagnosis usually presents little difficulty but the warning to X-ray any reasonably suspected case holds. I recently had a very decrepit old lady referred for a hip injury. She had had a bad rheumatic (?) hip for over a year and had hurt it again. X-ray showed an old fracture of the neck with almost complete absorption. Then, a careful study of the line, or lines, of fracture is important since treatment and prognosis may vary much as to whether the line is through the neck, near the head, or near the trochanters or through trochanters.

Treatment: It may be stated as a basic surgical principle that in case of the solution of the continuity of tissues the indication is "to gently and exactly reposition the tissues involved and fix them in position until the healing process is complete." But how? The soft tissues of the body, in case of laceration, present varying problems most of which have been satisfactorily solved. The bones, however, of such different character, deeply placed and functioning as supports and levers have, in case of breach of continuity, presented problems not completely and satisfactorily solved after all these years. This is especially true of the neck of the femur where angulation, weight bearing and senile changes conspire to increase the number of cases and accentuate the difficulties. We have taught and regularly practiced open reduction and fixation of fractures of the olecranon and of the patella because the results otherwise were not good. Other fractures are opened, reduced and fixed after closed methods fail. Now, if the percentages indicate, economy is served, suffering is less, mortality reduced and end results are bettered by internal fixation, this fracture should be added to those listed as operative from the start.

R. O. Joplin: Internal fixation for fractures of the neck of the femur may not be the final solution of the so-called unsolved fracture, but it is definitely the greatest improvement since the advent of the Whitman method.

Essentials in treating these fractures are exact reposition, firm fixation and good technique. Whether one adheres to the use of the Smith Peterson flange nail, or to Moore's older method of three pins, or the present method of four pins is merely a matter of choice, as both methods have given equally good results, and there is no rea-

son in this discussion to bring out the points claimed as an advantage of one method over the other.

The perfection and use of lateral X-rays has done much to simplify the operative procedure in these cases and to obtain correct reductions which is essential for successful results. No doubt the percentage of bony union with the Whitman method would have been higher with the use of lateral X-rays for perfect reduction. Because of the advanced age and debility of most of the patients that sustain this type of fracture, there will always be a certain number of them who die as a direct result of the injury, regardless of the method used. I do not believe the shock of this operation under local or low spinal anaesthesia is as great as the shock of an un-reduced fracture and early fixation is the first and most important step in the general treatment of these poor risk patients. Where operation is delayed for several days, some method of reduction and immobilization should be used. Following operation these patients are very comfortable and their movements are not hindered by external fixation dressings.

The necessity of nursing care is decreased which is very important in large Municipal Hospitals, as many patients treated by the Whitman method have died because of inadequate nursing care. These people can move about in bed and do things for themselves which makes them more contented. If you have a flare for dramatics, or wish to show off, you can get these patients up on the side of the bed the next day, or in a wheel chair in two or three days, but I am convinced that this adds nothing to the patient's comfort, recovery or your final results. In our enthusiasm for this method we should not forget that we are treating aged people.

Internal fixation permits weight bearing much earlier than with any other method of treatment, however too early weight bearing should be discouraged, because this has caused the pin to be displaced from the proximal fragment, or the pin to break. I see no particular reason for removing these nails or pins, although they are of no use after six months, unless there is some definite indication for doing so, such as, infection, extrusion of the nail and shortening of the neck. This latter can usually be prevented by accurate reduction and good impaction.

Methods of treatment should not be judged from certain successes, but from average results. With the Whitman method, bony union is obtained in fifty percent of the cases, against eighty to ninety percent with internal fixation. The average mortality with the older methods of treatment has been around twenty-five to thirty percent against five to ten percent for this newer method.

There can certainly be very little, if any, criticism of a method of treatment that has done as much to decrease the cost, morbidity and mortality, and increase the percentage of solid union, as internal fixation of fractures of the neck of the femur.

Richard T. Hudson: I have a few convictions as to the treatment of inter-trochanteric and fractures of the neck of the femur. Inter-trochanteric fractures practically always heal regardless of the method of treatment, either traction, casts or internal fixation, but a certain number of fractures of the neck of the femur do not heal regardless of the treatment used. I am sure that some method of internal fixation is the method of choice in fractures of the neck. It is the consensus of opinion of the Academy of Orthopedic Surgeons that internal fixation with either the Smith-Peterson nail or the Moore's pins is usually indicated. Dr. Smith-Peterson has been using the Smith-Peterson nail since 1926, and formerly did open operations, but lately has been using the blind method of nailing to insert the nail. He says "Any report on the treatment of fracture of the neck of the femur under two years is a preliminary report." I do not know how long it takes union to take place, but at least six months. I feel sure that any fracture of the neck of the femur should have internal fixation with some substance, either metallic or an autogenous bone graft (which most patients of this group cannot stand). Personally, I prefer the Moore's pins. I believe they hold the fragments together better.

Here is a point in the technic: It is better to insert the pins parallel to each other than to have them cross, for in a certain number of cases absorption of the neck takes place and the fragments will heal apart if the pins are crossed. If the pins are parallel the head and pins slide down toward the trochanter and union still occurs. In some cases of fracture of the neck of the femur absorption of the neck takes place regardless of the method used. So many of these patients are old, there is a certain amount of mortality from shock and general disability regardless of the method used. But the method of choice is internal fixation in fractures of the neck of the femur.

I. A. Arnold: About twenty-two years ago at a certain medical meeting, the subject of fracture of neck of the femur was being discussed with special reference to the Whitman Method. During the discussion I made the statement that the Whitman method was second best in the treatment of the fracture of neck of femur, the open method of fixation being better. There was such controversy over this statement, that is, condemning my stand, that I have never openly discussed fracture of the neck of the femur until this meeting. I am exceedingly glad to see that the method of treatment which I advocated at

that time, and was so condemned, is now being used as the best method especially in aged people.

In the treatment of the fracture of the neck of the femur, there are several cardinal points which must be considered, but I will only be able to mention one or two. First the blood supply in the head and neck of the femur. Only about 40 or 60 per cent have an artery through the ligament teres which supplies the head. The main blood supply comes from the distal portion to the neck of the femur from the vessels on the posterior and superior borders and the posterior inferior borders of the neck of the femur. If at the time of the fracture or manipulation, these vessels are severed, and with the absence of artery to the head of the femur, there can be no union. Although the osteoblasts from the distal fragments project themselves into this mushroom like head of the femur causing an interlocking and stabilization which simulates and functions the same as if there were osis regeneration from both fragments. The best results are obtained by an open operation with complete reduction with slight impaction and absolute fixation at the site of the fracture.

A CLINICAL PATHOLOGICAL CONFERENCE:

A CASE OF NEPHRITIS

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I think you are all acquainted with the manner of conducting these exercises. The clinical records of a patient who has died in the hospital and come to autopsy are given for study to a member of the Medical Staff and from the data contained in the history he is asked to conclude what was the nature of the illness and to predict the post mortem findings. He may have examined the patient while he was upon the ward or he may not, the only requirement being that he shall have no information about the results of the autopsy. To give this exercise, as I am now doing, without the pathologist being here to add his discussion robs it of much of its interest and nearly all of its dramatic effect. I must select a case which already has been presented at a hospital conference; therefore I know in advance what the autopsy has revealed. Nevertheless it is my invariable practice to dictate a discussion of the clinical features of the case before the conference is held and you must trust me on this

occasion to give an amplification of the dictated discussion unbiased by the subsequent report of the post mortem examination.

I have the embarrassed feeling that I should offer an apology for appearing before you to conduct this exercise. Were you to ask me, what is the immediate practical value of this searching analysis I should be obliged to answer, none. It will not fit you better or more successfully to treat cases of nephritis coming to you at an advanced stage. However, although the function of the physician is to prevent and cure disease still he may have also, and I think should have a deep interest in the nature and cause of the reactions we speak of as disease; a curiosity to understand precisely what changes are going on in the patient, how they began, the course they have so far run, and how they will proceed. I need not point out that such interest and curiosity are at the root of all medical progress.

The clinical data of the case I am to discuss are as follows:

A white man, 26 years of age, came to the medical clinic of the Out-Patient Department February 11, 1937, having been sent by his physician for examination because of the presence of albuminuria. The patient did not complain of any symptoms and said he felt well. There was nothing of importance in his past history. He had not had many respiratory infections, no sore throats. The only pertinent point was that five years before he had fallen over a chair and had hurt his left side and there then had been blood in the urine for two days. Two months before coming to the hospital he had gone up for life insurance examination and had been refused on account of the evidence of kidney trouble. The general physical examination in the clinic showed nothing of importance,—there was no edema and the heart and peripheral vessels were normal.

The only noteworthy finding was the presence of abundant albumin in the urine with a small number of leucocytes and an occasional red blood cell in the sediment. On February 24, 1937, the patient had been admitted to the hospital for more complete study.

EXAMINATION:

Temperature 98.6. Pulse 64. Respirations 18. Blood Pressure 138/78.

The patient was a well developed, well-nourished young man, cheerful and seemingly not at all ill. The eyes were normally

prominent, pupils equal, regular, reacted actively. The eye movements were normal. The fundi revealed no changes, the arteries being about normal in appearance. The teeth were in reasonably good condition. The pharynx showed nothing remarkable other than small, scarred, adherent tonsils. There was no enlargement of any of the superficial lymph nodes. The thyroid was not enlarged. The chest was well formed and symmetrical. Movements equal on the two sides. The lungs were clear. The apex beat of the heart was in the fifth interspace, 9 cm. from the midline. The area of cardiac dullness was not enlarged. The heart sounds were clear and of normal quality. The pulse was regular, equal at the two wrists. The peripheral vessels were just palpable. The abdominal examination showed nothing remarkable. The liver and spleen were not enlarged. The genitalia were normal. The rectal examination was negative, as was also the neurological examination.

COURSE IN HOSPITAL: The patient's course was uneventful. He said he felt well and he never complained. He was discharged on March 4, 1937, in good condition.

LABORATORY EXAMINATION: Blood Count: Hbg. 13 Gm., RBC 3,820,000, WBC 7,950.

Wassermann reaction on the blood serum was negative.

Blood Chemical Studies:

	NPN	CO 2	T. Prot.	A.G. Ratio	Calc.	Phos.
2-25-37	..60	61.7	6.62	65.35		
3-4	..60		6.90		10.3	4

URINE: Specific gravity varied from 1.006 to 1.016. There always was a large amount of albumin, averaging about 2 Gm. per liter. There were many white cells and at times a few red cells and occasional hyaline casts.

Phthalein test of kidney function showed an excretion of 30% in two hours.

Urea clearance test: No. 1 35% normal standard clearance. No. 2 36% normal maximum clearance.

URINE CULTURE: On one occasion a light growth of staphylococcus albus; on another occasion a light growth of alpha streptococcus.

THROAT CULTURE: No Beta hemolytic streptococci.

CYSTOSCOPIC EXAMINATION: Free flow of urine from left kidney, no flow from right kidney. Phthalein appeared in the urine from left kidney after 2½ minutes. 18% output in 20 minutes. No trace of the dye from the right ureter.

URINE CULTURES: Remained sterile.

ROENTGENOGRAMS: Chest: Tele. M. R. 4;

M. L. 8.6; A. 5; Heart and aorta within normal limits. Lungs are clear.

After Hippurans injection no evidence of stone. No function of right kidney. The left kidney pelvis and upper ureter are well visualized but there is practically no visualization of the calices. Bilateral stereo-pyelogram shows a typical infantile kidney on the right side which probably is functionless. The left kidney shows definite deformity of the calices suggesting multiple cysts.

The blood pressure varied Systolic 135 to 100. Diastolic 80 to 70.

The patient was admitted to the hospital the second time May 4, 1937. Following his discharge two months before he had been well and had worked regularly. Two weeks before the second admission he had noticed a little swelling of the ankles. This had occurred each evening and had become more and more pronounced. Ten days before admission he had gone on a party, had drunk a lot of beer and the next day his face had been swollen. Following this his face had remained more or less puffy. A few days before admission he had noticed a little shortness of breath on exertion.

EXAMINATION: Temperature 98, Pulse 60, Respiration 18, Blood pressure 186/124.

The patient was in good general condition, the only conspicuous features being puffiness of the face and pronounced edema of the legs, extending up to the knees, pallor of the mucous membranes, and hypertension with edema of the retinae. The apex beat of the heart was in the fifth interspace 9 cm. to the left of the midline. The heart was not enlarged on percussion. The sounds were clear, the second aortic now described as accentuated and snapping in quality. The retinae showed edema but no exudates or hemorrhages and no conspicuous changes in the arteries. There was a little fluid in both pleural cavities and shifting dullness in the abdomen.

COURSE IN HOSPITAL: The patient never complained, at all times saying that he felt perfectly well. The edema soon disappeared. He was discharged from the hospital on May 20, 1937, in good condition.

LABORATORY EXAMINATIONS: Blood count: Hbg. 12.4 Gm., RBC. 4,300,000, WBC, 6,300.

Wassermann reaction on the blood serum negative.

BLOOD CHEMICAL STUDIES:

	NPN	CO 2	T. Prot.	A.G. Ratio	Calc.	Phos.
5-5-37	..72	40.9	5.74	59.41	7.9	5.2
5-12	...62					

URINE: The urine varied in specific gravity from 1.004 to 1.010. Always a large amount of albumin, varying from 5 to 12 grams per liter.

In the sediment many leucocytes, a varying number of red blood corpuscles and a small number of casts.

The phthalein test of kidney function yielded an excretion of 5% in two hours.

UREA CLEARANCE TEST: No. 1, 25% normal standard clearance; No. 2, 26% normal maximum clearance.

CULTURES: Urine: Light growth of staphylococcus albus. Light growth of a rough pneumococcus.

Throat: No hemolytic streptococci.

The blood pressure varied. Systolic 160 to 210; Diastolic 90 to 140.

The patient was admitted to the hospital the third time on February 8, 1938. Following his discharge nine months before he had remained well and kept steadily at his work. On one occasion he had been obliged to remain away from work for a week on account of persisting hiccups. He had frequent nose bleeds, as many as two or three a week. Two months before this third admission he had begun to notice some difficulty with vision. A few weeks later he had had a convulsion during the night and when he awoke he had found himself in the City Hospital. Following this he had noticed ringing in the ears which had persisted up to the time of his admission to the hospital. He had left the City Hospital January 21, 1938. After he had been at home for a few days he had another convulsion in his sleep and again had been taken to the City Hospital where he had remained for a week. He had come into the Johns Hopkins Hospital because those interested in him had asked that he do so.

EXAMINATION: Temperature 98.2. Pulse 90. Respiration 22. Blood pressure 195/130.

The patient still is described as a well nourished, well developed young man. There was rather striking pallor of the skin and he was a little drowsy. The disc margins were blurred, there were many areas of exudate and hemorrhage, and the retinal arteries were thickened. The apex beat of the heart was in the fifth interspace 10½ cm. to the left of the midline. The heart as measured by percussion was definitely larger than on the previous admission. The sounds were all very loud, the second aortic sound accentuated and ringing in quality. The peripheral vessels were now definitely thickened. The edge of the liver was felt two fing-

er breadths below the costal margin. The spleen and kidneys were not felt. There was no subcutaneous edema.

COURSE IN HOSPITAL: On this occasion the patient did not improve but steadily grew worse, although he never complained and always said he felt well. On March 18, 1938, the note is made that for a few days the patient had been growing rapidly worse, with nausea, vomiting, diarrhea and abdominal pain. The anemia had become more pronounced and there was progressive elevation of nonprotein nitrogen in the blood. The urinary output had fallen to a low level although throughout this admission there never was any edema. From then on the patient went downhill more rapidly, he became drowsy and more and more unresponsive. On March 23, 1938, a pericardial friction rub was observed. Later he was somewhat confused and a number of convulsions occurred at intervals. Finally he sank into coma and died on April 14, 1938.

LABORATORY EXAMINATIONS

Blood count:	Hbg.	RBC	WBC
February 8, 1938	7.7 Gm	2,130,000	7,100
March 15, 1938	8.2 Gm	2,450,000	19,900
	NPN	CO 2	T. Prot.
2-9-38	120	34.2	6.29
2-21	96	47.5	
3-11	124	45.7	
3-15	154	38.1	5.08
3-21	264	31.5	4.54
3-29	264	48.5	
4-8	210	58.9	5.70

URINE: Specific gravity varied from 1.004 to 1.012. There always was a large amount of albumin, varying from two to six grams per liter. Microscopical examination; Many leucocytes, a small number of red cells, an occasional cast.

URINE CULTURE: B. coli.

PHTHALEIN TEST OF KIDNEY FUNCTION: Excretion of 3% in two hours.

Urea clearance test: No. 1, Less than 5% normal maximum clearance. No. 2, Less than 7% normal standard clearance.

SPINAL PUNCTURE: Pressure 230 mm. After removal of 30 cc. of fluid pressure fell to 40 mm. 2 cells, both lymphocytes. Pandy negative. Wassermann reaction negative.

The blood pressure at first varied. Systolic 180 to 230; Diastolic 110 to 150. Toward the end of the illness the pressure fell, varying, Systolic 160 to 180; Diastolic 108 to 120.

The course of illness was entirely afebrile except for a few slight elevations during the last ten days of life.

ROENTGENOGRAM: 2-10-38. Chest: Transverse diameter of heart and aorta at upper limits of normal. Lungs clear.

DISCUSSION

It is quite clear that the patient had chronic nephritis and that he died of ure-

mia. Our problem is to decide the precise nature of the renal lesion. To begin with we note certain peculiarities about the clinical course of events, chief of which are the following:

1. The disease must have come on very insidiously since it was discovered accidentally in the course of a life insurance examination. The patient thought he was perfectly well, had had no symptoms to suggest that he was ill and there was no history of sore throat or other infections in the past which might have preceded the nephritis.

2. When discovered there was already a high degree of impaired renal function although no symptoms had been present.

3. The rapid advance of renal impairment after the presence of nephritis had been discovered. Only two months intervened between the first and second admission and yet during this brief interval a decided change had occurred in the degree of functional impairment; edema had come on, the blood pressure had risen from

A.G. Ratio	Chol.	Calc.	Phos.	Chlor.
64.36	333	7.2	11.1	102.4m-e.q.
		7.4	6.2	
		7.1	8.8	87.2
Sugar		6.7	16.	82.
115		4.1	16.	69.8
		41.	11.	

138/78 to 186/124, the non-protein nitrogen had advanced from 60 mg. percent to 72, the phthalein output had fallen from 30% in two hours to 5%, the urea clearance from 35% of normal to 25%.

4. In spite of this evidence of increasing renal insufficiency the patient was well and able to continue steadily at work for a year.

5. Hypertension came on relatively late in the course of the disease.

6. The urine contained a large amount of albumin; in the sediment there was always a large number of pus cells, only at times a few red cells, and never more than an occasional cast.

7. Cystoscopic examination and pyelograms revealed a very small, functionless right kidney.

Anatomically we may draw a distinction between those diseases which affect the kidneys diffusely and those which affect only circumscribed areas of the kidneys. In the first group are chiefly glomerular nephritis, arteriosclerotic nephritis, and amyloid disease, in the second group, polycystic kidneys, arteriosclerotic nephritis and pyelonephritis. This distinction though real is by no means absolute. For instance, in glomerular nephritis all of the glomeruli are not affected to an equal degree, indeed scattered between altered glomeruli there

are always some quite normal in appearance and we assume that these normal glomeruli are chiefly responsible for carrying on what functional activity may remain. Moreover it is the rule to find at autopsy a combination of two or more forms of renal damage. For instance the effect of polycystic disease is gradually to destroy more and more of the healthy, secreting kidney tissue. At an advanced stage only small strands of renal tissue with here and there a few glomeruli may remain. This small amount of secreting tissue may be sufficient to preserve life, even though the non-protein nitrogen of the blood may be permanently elevated and the phenolsulphonphthalein output almost completely suppressed. Death occurs only when an added infection destroys these remnants of secreting tissue.

One might surmise that this anatomical difference would be reflected in a difference between the clinical symptoms of cases of diffuse renal involvement and those of cases of circumscribed disease. To a certain extent such a difference does exist and although it is not constant and precise enough to permit us to distinguish between the two types with assurance yet it enables us to separate them in a high proportion of cases. The distinguishing features are chiefly two:

1. In patients with circumscribed, slowly advancing disease there is often evidence of severe impairment of renal function without any symptoms of uremia. The patient may live on apparently well for months or even years with a constantly elevated non-protein nitrogen and able to secrete only a trace of phenolsulphonphthalein. With diffuse renal involvement such a degree of impaired renal function is usually accompanied by severe symptoms of uremia.

2. In cases of diffuse renal involvement the sediment of the centrifugalized urine is usually abundant and consists chiefly of epithelial cells, casts and often red blood cells; in cases of circumscribed disease the sediment is usually slight and few casts are found. Should there be a larger amount of sediment the cells composing it are usually pus cells.

If these criteria have any discriminating value then the case we are now considering clearly belongs in the group of circumscribed renal lesions. Of the three types of disease included in the group we are forced to select pyelonephritis for there is conclusive evidence that the patient did not have polycystic kidneys and at his age

arteriosclerotic nephritis is very, very rare indeed. Moreover the late development of hypertension would be unusual in arteriosclerotic disease.

Tentatively accepting the diagnosis of pyelonephritis we now go back and review the clinical data to determine if they are consistent with this diagnosis. I think we must at once conclude that the course of events is characteristic of that disease. The insidious onset, the discovery of a high grade of renal insufficiency at a time when there were no symptoms, the persistence for a year of severe renal insufficiency during which period the patient felt well and was able regularly to continue at his work, the constant presence of pus cells in the urine with only a few red blood cells and an occasional cast, the late development of hypertension, are all very typical.

It is interesting to consider the very rapid advance of functional impairment of the kidneys during the brief interval of two months between the first and second admission to the hospital. There is every reason to believe that the renal disease had been of long standing and that impairment of function had come on slowly. In contrast to this the very great advance that occurred during the two months following the first period of observation has the appearance of acute rapidly progressing disease. I have already commented upon the fact that acute renal disease is often added to chronic, slowly advancing disease and when it is added the rate of advance is often accelerated. For instance in patients with congenital cystic kidneys who die in uremia the kidneys at autopsy always show in addition glomerular nephritis, pyelonephritis or arterial disease, not infrequently two of these conditions, sometimes all three. With this well grounded experience to support us it is safe to predict that very probably in addition to pyelonephritis the autopsy will demonstrate the presence of diffuse glomerular nephritis.

There remain two conditions which deserve consideration, the terminal pericarditis, and the small functionless right kidney.

The pericarditis may be dismissed with a word since in all particulars it is characteristic of the exudative, sterile pericarditis of nephritis. For many years it has been spoken of as the pericarditis of Bright's disease.

The small functionless right kidney may be interpreted as a congenital anomaly or as a kidney destroyed by disease. It seems to me very difficult to decide between these two possibilities. If we assume that the

kidney was destroyed by disease then it is reasonable to conclude that the disease was pyelonephritis. However pyelonephritis seldom if ever destroys a kidney so completely, particularly not when the ureter is unobstructed, as in this case it was. Since I have no experience that would justify me in contending that the kidney had been destroyed by infection I must prefer to regard it as a congenitally undeveloped organ.

The autopsy disclosed the lesions of pyelonephritis in both kidneys. The left kidney was somewhat smaller than normal and the surface was finely granular. The cortex was narrow and the striations blurred. The right kidney was very small, measuring about 5 cm. in its greatest diameter. The cortex was very narrow and the blood vessels between the cortex and the tiny pyramidal region were very prominent and thick walled. The presence of these large arteries demonstrated clearly that the kidney at one time had been fully developed and that it was not congenitally defective. The right renal artery was completely closed by an organized thrombus and no doubt the atrophy of the kidney was the result of cutting off its blood supply. The cause of the thrombosis could not be ascertained. The only clue in the history is the story of falling over a chair five years before, the accident having been followed by hematuria. However according to the statement of the patient he injured the left side, not the right. The ureters were both patent. There was chronic cystitis. Microscopically, in addition to the evidence of pyelonephritis, there were also found the typical lesions of glomerulonephritis.

The heart was moderately enlarged and covered with a thick, shaggy exudate. There were many leucocytes between the muscle fibres and about the blood vessels. In accord with the presence of hypertension there were many hyalin arterioles especially in the pancreas and about the adrenals.

Histaminase and Asthma.—Eustis reports four cases of allergic asthma successfully treated with histaminase. The product deteriorates rapidly and should be kept in a refrigerator. To overcome the effects of histamine in the intestinal canal, large doses of histaminase may be given at the start. By limiting the amount of ingested histidine, relatively small doses of histaminase are required. Until the specific foodstuff allergen is identified and desensitization carried out, histaminase may possibly control the attacks.

QUINIDINE IN THE TREATMENT OF HEART DISEASE

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Quinidine which is an isomer of quinine was introduced into medicine in 1918 following the observation four years earlier that quinine re-established normal sinus rhythm in a patient with pneumonia who developed auricular fibrillation. Since then the drug, prescribed in powder form as the sulphate, has become a valuable addition to the armamentarium of cardiac therapy. The indications for its use are for the most part well established. The contraindications, however, are less sharply defined and this has led to varying clinical experiences. This paper will not discuss pharmacology but is only concerned with therapeutic applications.

Quinidine finds its chief and almost specific value in the treatment and prevention of the cardiac irregularities and tachycardias, namely, extra-systoles, auricular fibrillation, auricular flutter and paroxysmal tachycardia-auricular, nodal and ventricular. While it may not always be secure in its preventative action, the drug is usually effective in treatment.

DOSAGE: This varies greatly from case to case. A single dose of 5 grains may be effective. From 40 to 60 grains a day may be required. However, it is unnecessary to use a large dose more than seven to ten days since if the desired results have not been effected within this time, further administration is usually futile. Gold and his co-workers have effectively shown that therapeutic and toxic effects depend on the size of the daily dose rather than the length of the time such doses are continued. Large doses can be given safely. Levine and Fulton gave 112 grains in twenty-four hours to a patient with ventricular tachycardia. Gold gave one patient 38,456 grains or an average of about 48 grains daily for 802 days. Smith and Boland used 2,620 grains averaging 40 grains a day in a patient with auricular fibrillation before normal cardiac rhythm was established. When large doses of quinidine are used, electrocardiograms will help in determining any toxic effect on the myocardium and also whether any encouraging therapeutic results are being obtained. The us-

ual single dose is 3-5 grains, for children as well as adults. Since the drug is rapidly excreted each dose should be two to four hours apart. In urgent cases I have had the patient awakened during the night. The administration is continued until the desired results are obtained or unpleasant toxic symptoms develop. Due to the rapid absorption and excretion cumulative effects after prolonged administration need not be feared. In an occasional case of paroxysmal ventricular tachycardia when shock or vomiting make the oral administration of the drug impossible the intravenous route is apparently safe. Quinidine is relatively insoluble in water but by vigorous shaking 50 to 60 grains can be dissolved in 500 c.c. of 5 per cent glucose. The solution is then filtered and given intravenously slightly warmed, at the rate of 100 to 120 c. c. an hour. It remains to be determined what is the maximum amount which can be given intravenously and whether the undesirable reactions which occasionally occur from oral use can be so avoided.

Several years ago it was suggested that strychnine could enhance the efficacy of quinidine. While I have often administered strychnine sulfate, 1/30 grain, t.i.d., when prescribing quinidine, it has been difficult to evaluate any synergistic action between the two drugs because the therapeutic dose of quinidine is so variable.

An occasional individual has symptoms of idiosyncrasy to the alkaloid such as deafness, tinnitus, diarrhoea or nausea and vomiting. Fortunately such disturbances quickly disappear on discontinuance of the drug but unfortunately they may preclude its further use. Willius has recently suggested that dilute HCL might prevent the diarrhoea. I have tried this in a few cases without effective results. Because of this sensitivity to the cinchona alkaloids it is helpful to question the patient as to previous experience with quinine. But an occasional person who claims to be sensitive to quinine can take large doses of quinidine. While these undesirable symptoms of cinchonism often appear after the first few doses due to the rapid absorption of the drug delayed reactions after a few days are more common. Because von Frey who introduced quinidine in 1918 reported cases in which after a small dose of the drug temporary sudden loss of consciousness with standstill of respiration happened, it has been customary to give a dose of 3-5 grains as a test for idiosyncrasy. Such serious reactions are

rare and have not occurred in my own experience. It has been suggested that patients with damaged liver tissue should be given quinidine with caution.

When the desired therapeutic end, namely normal sinus rhythm, is obtained, a maintenance dose of 3-5 grains, three times a day should be prescribed. This amount can be used indefinitely and may have prophylactic value.

As stated the chief value of quinidine is the treatment and prevention of disturbances in the heart beat. The controversy as to the contraindications revolve around the patient with chronic auricular fibrillation associated with organic heart disease. There are several reasons why normal rhythm should be restored in such cases. The subjective distress of the irregular beating of the ventricles is eliminated. It frees the patient from the lifetime use of digitalis. It decreases the probability of chances of the formation of intra-auricular thrombi and subsequent embolism. Finally the heart with normal rhythm is a more efficient pump than one that is fibrillating even though the ventricular rate is slowed by digitalis. When it was discovered that the drug could convert auricular fibrillation into normal rhythm, it was given indiscriminately to all fibrillators. Many embolic accidents occurred. It was felt that the establishment of normal auricular activity caused the detachment of clots which had formed in the auricular appendices from the fibrillation. Many carefully controlled studies showed subsequently that embolic accidents were no more frequent with quinidine than when digitalis alone was used. However, out of this early experience certain criteria have been adopted as to its use in auricular fibrillation. Quinidine may be dangerous if the fibrillation is (1) more than six months duration; (2) occurs in a patient with a history of heart failure for several months which has not responded to treatment, and (3) in a patient with marked cardiac enlargement. It is in these conditions that emboli are most liable to be discharged when attempts are made to convert the auricular fibrillation to normal rhythm. The patient with well compensated organic heart disease, especially mitral stenosis, who has recurrent attacks of auricular fibrillation must also be considered from a common sense clinical point of view. In such cases the re-established normal rhythm may last only a few weeks or months. Finally, the fibrillation becomes resistant to quinidine. It is reasonable that

after several bouts of fibrillation, the auricle of such a patient should be allowed to remain in a permanent state of fibrillation and the ventricular rate controlled by digitalis the rest of the patient's life.

In view of the apparent contraindications to quinidine in some cases of chronic auricular fibrillation, how should we manage the fibrillating heart which has been dislodging emboli? Despite the duration of the fibrillation, if the associated heart disease is well compensated and the patient has a reasonable life expectancy, it is good clinical judgment to attempt to restore regular rhythm and thus eliminate the factors which produced the emboli. There are many reports in the literature of patients with a history of embolism who were safely given quinidine. Moreover, there have been reported cases of chronic heart disease with severe decompensation which have failed to respond to treatment in which quinidine, used as a last resort, established normal rhythm and then compensation was restored.

If the ventricular rate is very rapid, it may be advisable to slow it by digitalis prior to the use of quinidine. Many investigators feel that adequate digitalization prior to the administration of quinidine probably increases the chances of success and decreases the amount required. This is my own impression in some cases. Preliminary use of digitalis also helps prevent the rise in the ventricular rate which often occurs while quinidine is being used and which can be very disturbing to the patient. If the ventricular rate begins to rise too high despite the preliminary digitalization, digitalis can be re-prescribed simultaneous with the quinidine. When congestive failure is present, full therapeutic doses of digitalis should always be used prior to the quinidine and a maintenance dose can be continued with the quinidine.

In hyperthyroidism the pre-operative use of quinidine to abolish coincident auricular fibrillation is often futile. If sinus rhythm does not spontaneously re-establish itself within a week or two after surgery, quinidine should then be used.

Auricular flutter may develop during the quinidine treatment of auricular fibrillation. In the few instances which this has occurred in my own experience, the drug was continued until normal rhythm was established, in the longest instance about eighteen hours after the onset of the flutter. If the flutter does not stop, discontinue the quinidine and use digitalis.

Because quinidine can increase auriculo-ventricular and intraventricular conduction time, it should be used cautiously in the presence of heart block—partial, complete or bundle branch in origin.

While patients with auricular fibrillation who are taking large doses of quinidine in an effort to restore regular rhythm can be ambulatory, it is preferable that such patients be in bed and given sedatives. Less quinidine will probably be required.

In auricular flutter it is advisable to primarily digitalize the patient. This converts the flutter to fibrillation and then normal rhythm occurs. Should normal rhythm not result, then quinidine is used in the usual manner to convert the fibrillation to sinus rhythm. If digitalis is not effective in converting the flutter to fibrillation, quinidine should be tried since it alone may be successful in abolishing this abnormal rhythm.

Because ventricular fibrillation is probably the chief cause for sudden death following a coronary occlusion and because he found that quinidine prevented the ventricular fibrillation which frequently follows ligation of the coronary vessels in animals, Levine recommends that it be given as a routine in coronary thrombosis with the object of preventing sudden death. In this connection Beck feels that the pre-operative use of quinidine will prevent ventricular fibrillation which is the chief cause for death during cardiac surgery. There have been several reports that the incidence of sudden deaths on the medical wards of hospitals have been reduced by routinely administering quinidine to every patient on those wards. Others likewise feel that quinidine may prevent sudden death as a result of ventricular fibrillation. Levine has also recommended that quinidine be given in coronary thrombosis in anticipation of the arrhythmias, particularly ventricular tachycardia, which may result from the myocardial infarction. Nathanson observed no harmful effects in the use of quinidine for six to eight weeks following coronary occlusion. This routine administration of quinidine in coronary thrombosis has been questioned. Master believes it is dangerous in the acute stages. Moreover, since in his experience most of the arrhythmias in coronary thrombosis remit spontaneously after a short period, he feels that quinidine is unnecessary either prophylactically or after the onset of the arrhythmias. He administers quinidine only when a persistent irregularity produces severe

shock or increasing heart failure. Years of observation will be necessary to determine the value of the drug in preventing sudden death. I have noticed no harm, however, in its routine use in patients with coronary disease.

Quinidine has been thought to have value in the treatment of angina pectoris. Further studies in this connection must be undertaken. It is difficult to assess the value of all drugs in the treatment of angina pectoris.

There have been reported rare cases of standstill of the heart due to hyperactivity of the carotid sinus reflex. Quinidine may have value in preventing such attacks.

Is quinidine dangerous? All drugs are dangerous but the possible harmful effects from quinidine have been overstressed. The problem of embolism has been discussed. All cardiologists today feel that this danger from quinidine has been overemphasized. A very rare case of paroxysmal ventricular tachycardia following its use has been reported. This is harmless since the tachycardia immediately subsides upon discontinuance of the drug. This is a paradoxical action since quinidine is the only drug which is known to stop paroxysmal ventricular tachycardia. Ventricular fibrillation has been reported as the result of quinidine. Also when given intravenously to patients with auriculo-ventricular dissociation subject to transient seizures of ventricular fibrillation, it precipitated attacks. This is also a paradoxical action since the drug is recommended to prevent sudden death from fibrillation of the ventricles. Recently there has been reported instances of sudden death probably due to depression of both the sino-auricular and auriculo ventricular nodes. A critical analysis of these case reports reveals that the nature of the heart disease from which these patients were suffering made them liable to sudden death despite the quinidine. Moreover, the following comments were made in a discussion of this report: (1) "No one has had a very great experience in sudden death with the use of quinidine, because, if he had, he probably would discontinue its use." (2) "One must be wary of concluding that every accident that occurs while a patient is being treated with quinidine is due to that drug."

Quinidine is a valuable drug in the treatment of heart disease. When used judiciously it is safe. When used rationally it can be life-saving.

DISCUSSION

Emmet F. Horine: This is a timely paper in that the essayist has carefully presented the effects of what is a miraculous drug. Why it is considered so dangerous by some physicians I have been unable to understand. Quinidine is isomeric with quinine, the difference being that the former is dextrorotatory and the latter levorotatory. The effects of quinidine with regard to taste, appearance, uses and dosage are the same as those of quinine. The effects of quinidine on the cardiac muscle are only slightly more pronounced and are quite similar to those of quinine. In my opinion quinidine can be no more dangerous than quinine which, for so many years, has been taken freely by the laity in large and frequent doses. Had this drug been harmful this fact would long since have been recognized.

Many patients with premature contractions are not conscious of them, and under these circumstances, there is no need for giving quinidine, especially since isolated premature beats do not place any strain on the heart. However, with frequent and multiple premature contractions, there is some strain on the heart and in this situation or one in which the patient complains of discomfort because of the irregularity, quinidine as well as quinine will frequently abolish the abnormal mechanism. I often combine quinidine or quinine with sedatives, and with digitalis when indicated.

Especially in transient though frequent attacks of auricular fibrillation, quinidine is most helpful. These attacks of paroxysmal auricular fibrillation may be crippling and make invalids out of patients who would, without the attacks, be able to lead a normal existence. Instead of quinidine being harmful to these patients, the danger lies in the auricular fibrillation itself, if permitted to continue because of inadequate dosage. Some patients will not take enough quinidine in order to control the attacks, and even some physicians fail to realize the necessity for adequate dosage. The maintenance dosage varies from nine to as much as thirty grains a day. There is no harm in taking these amounts of quinidine daily for an indefinite number of years, and as I have just mentioned, the only harm is from inadequate doses which permit the abnormal cardiac mechanism to continue and not from the drug itself.

When permanent auricular fibrillation has existed for many years, and especially if marked cardiac involvement is present with failure, care must be exercised in selecting patients for quinidine therapy. With proper precautions exercised in selecting cases, the results are good as I pointed out in some reports before this society about sixteen years ago.

In coronary thrombosis I formerly followed

the suggestion of Levine and used quinidine routinely in all cases. At the present time, I do not use quinidine unless premature contractions or auricular fibrillation occur in coronary thrombosis. Quinidine is certainly safe under these circumstances.

In quinidine therapy the chief difficulty is the presence of an idiosyncrasy such as a diarrhea, marked tinnitus, or visual disturbances which prevent its employment. Fortunately, the marked idiosyncrasies preventing the use of quinidine are not frequently encountered.

I am convinced by the frequent administration of quinidine over a period of eighteen years that it is of real value and that physicians need not be afraid of its use. Undoubtedly, its harmfulness has been grossly exaggerated.

W. B. Troutman: Several years ago I heard Dr. Wenkebach of Vienna tell this story and I believe he has been credited with introduction of the drug into our armamentarium; he said that many of the doctors from India coming to his clinic for post-graduate study spoke to him of patients they would see with heart irregularities and that while these patients were taking quinine for malaria the heart action became regular, this suggested to Dr. Wenkebach to try the drug in all types of arrhythmias and then later quinidine came into general use.

I would like to emphasize that I think patients with fibrillation should remain in bed while they are taking quinidine to correct that arrhythmia and especially those patients receiving the drug for the first time. The cases that do revert to normal rhythm experience a strange feeling at that time and we believe they are better off in bed when they have that sensation.

I have heard much said about quinidine but personally I still do not feel it is well to give it without caution. I have seen two cases die suddenly while on quinidine therapy. It is true that we often see sudden death in heart disease but to me these patients were not ready to die from their heart disease only.

One of the papers that Dr. Weiss mentioned by Smith and Boland of the Mayo Clinic reviews 45 cases treated with quinidine and three sudden deaths in the series; true they did not choose the cases, many were seriously ill with heart disease but this is a rather high fatality. Post-mortems were performed and cerebral emboli were not found, the matter of emboli causing sudden death is not so highly considered as formerly. The explanation for these sudden deaths was that both the sinus and A-V nodes are paralyzed and therefore cardiac stand-still.

One other point, when you have an accident where this drug is given I am afraid it is irreversible; so far as I know there are no pre-

monitory signs, the patient dies suddenly and we have no drug to counteract quinidine if it is at fault.

In closing, when we use quinidine we give it frequently and in adequate doses. So far as we know death is not likely to occur with any more frequency from the larger doses. We give five grains every hour for three or four doses, then the following day give the same amount for five or six doses and so on. It is a drug that is eliminated rapidly so why not give for full effect.

R. N. Holbrook: This paper has been very helpful to me in clarifying the use of quinidine. Dr. Weiss says it may have some prophylactic value. I have a specific case in mind. The patient developed auricular fibrillation which was treated by the use of quinidine. He went nine months without it then developed another attack of auricular fibrillation, which was relieved by the first dose of quinidine. He was then put upon one 5 grain capsule of quinidine three times a day as prophylactic measure and has continued to take it. I do not know whether he should keep it up. I should like Dr. Weiss to make clear its prophylactic use.

Morris M. Weiss, (in closing): I want to thank the gentlemen for their excellent discussion and would like to re-emphasize the points that Dr. Horine made about the lack of danger in the use of quinidine. Dr. Troutman commented about the history of quinidine. Von Frey is credited with introducing the drug in 1918. The toxin effects of quinidine on the myocardium can be determined by the electrocardiograph. The auriculo-ventricular or intra-ventricular conduction times are increased. Whether or not a considerable increase in these conduction times is serious remains to be determined. In answer to Dr. Holbrook's question: It is very difficult to decide how long to administer a so-called prophylactic dose of quinidine. This can be determined by the patient's experience.

Tuberculosis in the Aged. It is known that when old people are found to have tuberculosis it is almost impossible to teach them to take care of themselves and protect others from infection. They will not cover their mouths during a cough or sneeze, nor will they try to protect or destroy their sputum. Their idea is that they have lived all these years with this old cough, it will not hurt them and they do not see how they can hurt anyone else. Elderly people with a chronic cough and positive sputum are a menace to society and should be isolated. C. L. Harrell, M. D., Virginia Med. Monthly, November, 1939.

SOME IMPORTANT U. S. P. AND N. F. PREPARATIONS

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Having recently received my degree in Pharmacy, the professional aspects of Pharmacy seem tantamount to the sometimes distasteful task of merchandising commodities for the necessary profits. I recently asked for this opportunity to present this paper in the hope that in some small way I might help restore the pharmaceutical practice in this community to a more professional standard.

The subject of the paper is "Some Important U. S. P. and N. F. Preparations." I would like first to preface the material of the paper with a brief history of these two great volumes.

In January, 1817, Doctor Lyman Spalding of New York City submitted to the Medical Society of the county of New York a project for the foundation of a National Pharmacopeia.

By Dr. Spalding's plan, which was adopted, the United States was divided into four districts: North, South, East, and West. Each district had their meeting of doctors, and medical instructors, and compiled a pharmacopeia which answered the needs of their districts. Then representatives of the four districts at the general convention at Washington in January, 1820, examined and compared the contents of the separate pharmacopeias and after making the necessary corrections, additions, and deletions, consolidated the volumes and had the final product, *The United States Pharmacopeia*, printed in Boston in December, 1820, in both the Latin and English languages.

The publication and distribution of this volume represented the first attempt for national uniformity in requirements of drugs, chemicals, and drug products. Prior to that time, either European or Military Hospitals Formularies had been used in different localities.

It was also decided at the first convention that there would be a revision made each decade thereby keeping the volume at its maximum efficiency. Today we have official the eleventh revision of the U. S. P.

Feeling a further need for a supplementary volume to recognize drugs and preparations deleted by the U. S. P. or otherwise of particular merit, the American

Pharmaceutical Association compiled and published in 1888, the first edition of the National Formulary which, like the U. S. P. is also revised at ten year intervals.

Since these two volumes and only these two are recognized by the highest courts in the land as standards for drugs and preparations contained therein the rapid advancement, in recent years, in the fields of surgery, medicine, and dentistry, has necessitated the publication of yearly supplements.

Neither of these volumes admitting secret formula preparations, the American Medical Association further supplements these two volumes with New and Non Official Remedies, published yearly, which completes the field of therapeutic remedies.

As the curriculum of most medical schools has always been crowded, perhaps too little emphasis has been made of U. S. P. and N. F. preparations. This paper is presented with the hope that it may help refresh your memories of the study of these volumes, which you are daily being detailed away from.

Pharmacists believe that the use of official preparations would markedly lower the cost of medication to your patient for two reasons, we have to duplicate our stock so often since each manufacture duplicates the preparations of other manufacturers. As an example, we have six elixirs of Vitamin B and its complex, and none of the six have any particular merit over the others. Naturally the duplication of stock and quantities left over increase the pharmacist's cost of doing business, which makes the ultimate consumer, your patient, have to pay more for their medicines. Usually these products, that are so painstakingly detailed, represent U. S. P. and N. F. preparations with minor changes.

The more frequent use of U. S. P. and N. F. drugs and preparations would make medication less expensive for this reason also. The expense of detailing and sampling must be added to the actual cost of the preparation. So it is that Argyrol is nearly half again as expensive as mild silver proteinate U. S. P., Pyramidon more expensive than aminopyrine, luminal more expensive than phenobarbital.

There are other advantages of official preparations. Inasmuch, as their exact formula is known they offer more flexibility in concentrations of important medicinals.

The use of official nomenclature adds complexness to prescriptions, which is more impressive to the laity, and less

likely to be read by them and called for over the counter. Manufacturers of secret formula preparations have a two-fold purpose in giving a simple name to their preparations. First, they want the physician to remember it easily, and secondly, they want the laity to learn the name and give it an "over the counter" sale. Thus it is that many preparations on the market today have been introduced to the general public. To cite a few, Citrocarbonates, Argyrol, Super D. Perle, Lapactic Pills, Alophen, Sal Hepatica, Amphojel.

Some official preparations of particular interest for the coming season are:

Emulsion of Liquid Petrolatum U. S. P. This is an emulsion of 50 per cent mineral oil, sweetened with syrup, flavored with vanillin, and containing 5 per cent alcohol as a preservative. It has a dose of one ounce or more. It is a viscid, white, palatable emulsion which may be varied by the addition of phenolphthalein, Fluid Extract Cascara Sagrada, milk of magnesia, or even some of the more recent vegetable bulk producing substances. This preparation resembles Agarol, Petrolagar, Petro-psyllium but has the advantage of not containing any phenolphthalein and allows you to add a desired quantity.

Official in the N. F. is: Iso-Alcoholic Elixir which is unique and yet one of the most advantageous vehicles obtainable. It consists of varying proportions of two solutions, one called low-alcoholic elixir, composed of Compound Spirit of Orange, 10 per cent alcohol, 20 per cent glycerin, sucrose and distilled water. The other solution, known as high-alcoholic elixir, is composed of Compound Spirit of Orange, saccharin, glycerin, and 75 per cent alcohol. This elixir is designed to serve as a general vehicle for various medicaments that require solvents of different alcoholic strengths. It is possible, therefore, by varying the quantities of each elixir to obtain a vehicle with a constant, pleasant taste and with the alcoholic range of from less than 10 per cent to 95 per cent. This alleviates the necessity of a doctor worrying about the alcoholic concentration of his vehicle. He has simply to write, Iso-Alcoholic Elixir, q. S.

Official in the N. F. is: Unguentum Iodatum Denigrescens or Stainless Iodized Ointment which resembles Iodex. This ointment represents 5 per cent Iodine which has been dissolved in oleic acid, making an organic iodine combination, and is incorporated with a base of petrolatum and par-

afin. It is used as a counterirritant and solvent. Since the iodine in this ointment is in chemical combination with the oleic acid, it does not stain the skin. The combination is a sufficiently loose one to permit the iodine to exert practically the same type of action as if it were uncombined. The oleic acid promotes absorption, thus assuring a means of obtaining systemic effects. For an added analgesic effect, methyl salicylate may be added.

Official in the N. F. is: Ungentum Mentholis Composita, Compound Ointment of Menthol. It contains 15 per cent W/W Menthol, 10 per cent Methyl Salicylate incorporated in hydrous wool fat and stiffened with white wax. This is an excellent ointment to allay pain especially when applied with friction. Many trade named "Analgesic Balm" have this formula with perhaps minor additions, as does "Menthalgessic" of the Blueline Co., which contains chloral hydrate. As an excellent base ointment, you may add phenol, camphor, additional aromatic oils and so forth, and thus produce a truly special analgesic balm. Most modern prescription departments are prepared to place ointments of this kind in collapsible tubes, thus assuring full strength of even the last portions to be used.

The nature of the ointment base, woolfat, and wax, both carbohydrates, assures quick absorption and penetration to sore muscle tissues, this being an advantage over manufactured brands which are made to keep indefinitely and therefore have large quantities of petrolatum as a base, sacrificing absorption for commercial profits.

For the forthcoming season, with many skin irritations, I would like to call your attention to the lotions as a class of preparation, all official in the N. F.

First is white lotion, with which you are all familiar. This lotion contains zinc sulfide as a precipitate in a fine state of division, freshly prepared by the reaction between equal parts of zinc sulfate and sulfured potash. This lotion may be made more astringent by adding additional zinc sulfate.

Then there is Calamine Lotion, an old favorite used for many years for its astringent, drying and drawing properties in skin diseases. It represents equal parts of zinc oxide and prepared calamine with glycerin and lime water. Also official is Phenolated Calamine Lotion containing 1 per cent phenol, which exerts the addition-

al value of phenol as a local anodyne and antiseptic.

There is also official a Yellow Lotion representing mercuric hydroxide, prepared freshly by the reaction between Mercuric Chloride and limewater which is used as a stimulant antiseptic application to syphilitic sores, and in some forms of eczema.

Black Lotion represents mercurous hydroxide formed by precipitation from calomel and limewater, and is suspended with a small quantity of Acacia. It is used similarly to Yellow Wash, but it is not so active as a stimulant.

Official in the National Formulary is: *Liquor Sodii Phosphatis*, or Solution of Sodium Phosphate. It contains in each 100 cc. 40gm of anhydrous Sodium Phosphate, glycerin and citric acid. This solution which represents the crystalline salt in the proportion of one GM per cc. furnishes a convenient form for the administration of Sodium Phosphate, the citric acid is added to prevent the salt from crystalizing out, also for palatableness, and the glycerin assists in its preparation, sweetens, and especially in prevention of the development of micro-organisms. The customary dose is two drams. *Fleets' Phospo Soda* is this preparation to which has been added a small amount of Sodium Biphosphate and a little yellow coloring, and yet is twice as expensive.

Official in the N. F. is: *Elixir Barbitol* which contains in each 100cc., 3.5gm of Barbitol, colored with caramel and flavored with compound spirit of vanillin, having 30 per cent alcohol and about 50 per cent glycerin. This is an excellent hypnotic, each teaspoonful representing two grs. of barbitol. A similar product known as *Neurondia*, having popular use in this community, is nearly three times as expensive as the official product. *Peacock's bromides* has an official duplicate in *Elixir of Five Bromides N.F.* This elixir is composed of decreasing quantities of sodium, potassium, calcium, lithium and ammonium bromides, flavored with syrup glycyrrhiza and syrup of raspberry and represents only 4 per cent alcohol. Used as a nerve sedative in one dram doses, each dose representing fifteen grs. of the mixed bromides.

Official in the N. F. is: *Elixir of Bismuth* which is useful as an intestinal astringent. It is prepared from glycerite of Bismuth which is a soluble double salt of Bismuth with an organic acid. It contains in addition to the Bismuth and sodium tartrate and Bismuth Subnitrate, glycerin, dis-

tilled water and aromatic elixir, representing about 11 per cent alcohol. This makes a clear product. The average dose is one fluidram.

Gardner's Syrup of Hydriodic acid which is twice as expensive as Syrup of Hydriodic Acid U. S. P. and has the same strength exactly, namely 1.4gm Hydrogen Iodide. Its use, as an alterative in similar cases for which potassium iodide is employed, is familiar to you all.

There are many other examples that might be cited, but time doesn't permit.

In closing, let me say that I hope I have presented some information of interest and value. And I would like to assure you that all ethical pharmacists, despite of the external appearance as merchants, that being necessitated for a living, are in reality highly trained men and women who have devoted many years to the learning of their profession and are eager to help you with any prescription problems you may have such as incompatibility, of all types, variations in strength, coloring for physiological values, isotonicity, and so forth.

OBESITY AND GENITAL UNDERDEVELOPMENT IN PREPUBERTAL BOYS

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Nowadays the diagnosis of Frohlich's Syndrome is made quite frequently in the cases of fat little boys whose penises are small. This is a somewhat puzzling situation, whose peculiar development briefly is as follows:

In 1901 Frohlich (and possibly Babinski before him) presented the case history of a child who came under his observation. This boy had severe headaches with vomiting, marked eye signs including partial blindness, and developed a rapid accumulation of fat of pelvic girdle distribution. Frohlich reasoned by neurological and physical signs that this syndrome was the result of an expanding lesion in or near the pituitary and to the symptom complex his name was appended. As early as 1909 objections to the hypophyseal site of the lesion of Frohlich's syndrome were heard and it was felt that the focus for the observed phenomena might be located within the sella turcica or in the hypothalamic region causing pressure on the pituitary

body. Later still it was argued that no demonstrable lesion at all was necessary for the causation of the symptoms; that Frohlich's syndrome might be due to some unrecognized functional abnormality.

Frohlich made no claim that the genitalia in the case of his patient were particularly undersized. He did state that the penis appeared to be small because it was partially buried in the excess adipose tissue which had accumulated on the mons pubis. For some reason, however, infantile genitalia entered into the clinical picture known as Frohlich's Syndrome. Modification after modification of diagnosis has followed until, now the label, Frohlich's Syndrome, is apt to be attached to any fat little boy who comes, with a small penis, to the doctor's office.

In 1932 Engle suggested that gonadotropic hormones play a part in causing normal descent of the testicle in humans. This suggestion was based on the fact that the human is the only animal whose testes are descended at birth and that the human female is the only one having gonadotropins in the blood throughout gestation. Since then numerous clinicians have reported the descent of undescended testicles following injection of gonadotropic substances obtained from pregnancy urine, the anterior lobe of the hypophysis and from the serum of pregnant mares. Many have remarked the increase in the size of the genitalia as a result of such administration.

Frohlich's case report and the clinical experience following Engle's suggestion have been added together to make, in many cases, a great deal more than two. It has been repeatedly shown that gonadotropic hormones will not, alone, influence obesity, although they will increase penis size, perhaps permanently and in some cases cause descent of testes.

What, then, is to be done with fat prepubertal youngsters with small genitalia? I believe that the huge majority of these are obese simply because they take in more calories than they consume. I have no records to prove or disprove the contention that they accumulate fat because of a relative hypoglycemia which causes them to eat more. We do know, however, that these children are usually cheerful, physically inactive, and sleepy. With a caloric intake adjusted for their height and age, and rich in proteins and vitamins, daily

exercise, and perhaps some desiccated thyroid these individuals will lose weight.

A case in point is that of George A., white, age 11. He was first seen in October 1939, when he was 56 inches tall and weighed 136 pounds. The fat was distributed mostly on the lower abdomen, the buttocks, and the mons pubis. He was clumsy because of his obesity, his playmates teased him and refused to admit him to their games. He was quite sensitive about this and also about his genitalia which seemed tiny to him. Both testes were in the scrotum, the penis was not measured. His skin was of delicate texture and coloring, his hair was abundant on the head, soft and silky. His pulse rate was 76 per minute and his temperature was 97°.

George was put on a diet containing 1200 calories daily. He was advised to take plenty of exercise and in addition was given small doses of thyroid substance which were cautiously increased. For the past three months he has been taking one and a half grains of thyroid daily. He has stayed on his diet and has lost in 5 months 30 pounds. He feels much better, and is a real boy again. His pulse rate is fairly constantly at 82 per minute. His genitalia still appear small but we feel that puberty will take care of that and see no reason to hasten puberty.

Frequently cryptorchidism is seen in connection with obesity in children. Here the diagnosis of Frohlich's syndrome is even more certain to be made and injections of gonadotropins started, or else surgery is resorted to. It is true, label these cases what we will, that their treatment presents a problem requiring deliberation.

In prepubertal cryptorchidism what are the patient's prospects? Johnson found an incidence of 17 cases of cryptorchidism per thousand examined boys between the ages of 7 and 17. On the other hand the examination of army recruits showed an incidence of 2 cases of cryptorchidism per thousand soldiers. It is safe to say, then, that about 15 of 17 cases of undescended testes will experience descent spontaneously at puberty. From this it would seem that very few cases of cryptorchidism per se need treatment of any kind. The problem to solve concerns which cases should be treated and which left alone. In order to elucidate this problem some consideration of cryptorchidism in general is necessary.

There is no doubt that the normal des-

cent of the testis is caused by hormonal control. It may be prevented by lack of the necessary hormonal stimulus or by mechanical obstruction of the pathway. It is difficult to conceive of a hormonal stimulus affecting one testis, and not the other; therefore cases of unilateral cryptorchidism are practically invariably due to mechanical obstruction. It may be possible at times to overcome this obstruction and effect the descent of one testis by means of gonadotropic substances. If this is the case, then the increased natural output of such substances at puberty would probably bring about the same result. If not, then surgery should intervene after puberty has had a chance and gonadotropins should supplement the efforts of surgery.

In the case of bilateral cryptorchidism we must certainly consider the possibility of lack of gonadotropic stimulus; more particularly if we can find neurologic or roentgenologic or laboratory evidence of pituitary pathology. Here the gonadotropins derived from pregnancy urine will nearly always produce descent providing mechanical obstruction is not also present. Testosterone, the male sex hormone, is not advised because of the possibility that its effect may cause epiphyseal closure and stop body growth. Debate continues as to whether the testis undescended after puberty is more likely to undergo malignant change. As long as there is still some question and for other obvious reasons cryptorchidism should not be tolerated after puberty.

It should be emphasized again in connection with these cases that obesity will not be corrected by the use of gonadotropic hormones alone. Whether the obesity is due to hypothalamic dysfunction affecting the pituitary, and secondarily the thyroid, or whether there is disturbance of normal water exchange is not known. These children will however, tolerate relatively large doses of thyroid substance without ill effects, and indeed most of them seem to benefit markedly from its administration.

In summary I should like to present the following thoughts for your consideration:

1. Frohlich's Syndrome is a rare symptom complex and other conditions are frequently mistaken for it.

2. The use of anterior pituitary or anterior-pituitary-like hormonal substances is rarely indicated in conditions simulating Frohlich's Syndrome. These substances

hasten the approach of a puberty which would have arrived spontaneously at a later date in practically every case.

3. The treatment of the usual case of obesity in childhood is that of obesity at any age, namely controlled diet and exercise, with, perhaps, the judicious use of desiccated thyroid.

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The early symptoms of renal tuberculosis are not appreciated, and genito-urinary tuberculosis is regarded as a disease by itself and not as a manifestation of a generalized tuberculous condition. As a result, adequate convalescence and expert after-care are not insisted upon. Sanatorium treatment and continued supervision after operation or local treatment will favorably influence the general prognosis. J. Carver, M. D., *Tubercle*, April, 1939.

PSYCHOSOMATIC RELATIONSHIPS

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For the past several years there has been an increasing interest on the part of the medical profession in the contribution to diagnosis and therapy that might result from a better knowledge of the relationships between the so-called physical aspects and the so-called psychological aspects of disease. For this relationship the term psychosomatic has been coined. Although certain isolated individuals have from time to time pointed to the importance of such consideration it has been only within the past five or six years that there has been any concerted effort toward planned, non-haphazard investigation in this field. As a consequence of the lack there has furthermore been no consistent teaching of medical students along these lines.

Hamman¹, speaking before the A.A. A.S. in December 1938 said, "When I was a medical student psychoneurotics were objects of ridicule and not of serious study and sympathy. With the passing of years this attitude has become somewhat softened, yet essentially it is still the attitude of many physicians. The mind always seeks precise classification and is never more pleased than when experience can be snugly labelled. Packing it away in this neat fashion is so much more satisfactory than delving about for explanations that require long and painstaking investigation that may in the end elude our search." He added, "Psychiatry is a discipline whose purpose it is to study and understand the function and influence of mental processes and emotional states in health and disease. Until recently these have been studied only when they have led to grossly disordered conduct. Now they are being fruitfully studied as they operate under normal conditions, and knowledge of their sphere of activity in illness is rapidly extending. To the internist it is a vital and integral part of his work. Indeed, I find it impossible to formulate a clear expression of the relation of psychiatry to medicine so intimately and inextricably are they bound together. In spite of this growing importance it is the subject about which medical students know the least and one in which their training is most deficient."

Dunbar² has called psychosomatic relationships a "between field" where lack of understanding has blocked progress in the medical specialties. Myerson³ mentions that if there is a psychosomatics there is also a somatopsychics—where we must consider as adequately as possible the personality and body structure as a whole, as well as the individual social setting.

To do this, according to Dunbar, "it is as important to consider methods as well as results. Studies of simultaneous sequences in psychic and somatic spheres are fundamental. Cooperation between physiologists and medical psychologists is of importance. Simultaneous recording of several physiological functions rather than one alone is desirable."

Out of all this realization there have begun to appear the published results of investigation specifically thus oriented. Two of these are characteristically illustrative. One will be considered briefly; the other at greater length.

In 1937 Flynn⁴ attempted to determine the underlying mechanisms in a group of twenty psychoneurotic patients whose symptoms were, in the order of frequency, fatigue, digestive complaints, excessive perspiration, coldness of extremities, tachycardia, dyspnea, headache, precordial discomfort, and insomnia. Supporting these complaints were slight but definite objective signs (in order of frequency) of low blood pressure, increased sugar tolerance (low curve), moist skin, tenderness over colon in the lower left quadrant, lymphocytosis (above 35%), low basal metabolism (below -5), coldness of extremities, and cyanosis of extremities. Psychically all were unhappy, and dissatisfied with life. First endeavors were confined to explaining and treating the disorder on a purely physical basis with the belief that the psychic situation would clear up when the physical symptoms had disappeared. The endocrine glands were thought of first and thyroid, later pituitary substances were administered without subjective improvement. It was incidentally noted that almost without exception the signs referred to were the reverse of what Cannon described as responses of animals to emotional stimuli and as due to excitation of the sympathetic. A regime, therefore, was instituted to overcome the autonomic imbalance—cold baths, relatively small meals of easily digested food, moderate exercise, and use of such drugs as ephinephrine, ephedrine

and atropine. Some of the patients (eight) were cured symptomatically as well as in regard to physical signs; others continued to have symptoms, though signs were normal. Then it was decided to investigate the psychic factors.

This quickly revealed that patients very often complained of physical symptoms of an emotional reaction, while withholding the story of emotional strain. Basically all of these patients showed a common pattern. All were faced by situations which were disliked, which were intolerable, and which could not be altered. In a measure, each one of them rebelled against the inevitability of his own limitations. Where one recognizes that one's objectives are unattainable, wisdom demands that the objective be changed. These patients were unfortunate in that they could not, or would not, alter their objectives. Psychotherapy (catharsis and resynthesis) aimed to assist them in doing this. The results were so gratifying when it was used in conjunction with physical methods of treatment, that it was tried alone and surprisingly was followed by fully as complete a restoration of mental and physical health.

In discussing possible questions raised by these results Flynn states that it is likely that both physical and psychogenic factors may produce this predominantly parasympathetic orientation of the autonomic system. The apparent antithesis of function noted here as compared with Cannon's animal experiments he suggests as due to an important difference between man and the lower animals. Both can rebel against an undesirable environmental situation, but Cannon's animals rebelled against menacing situations which might be overcome by full utilization of bodily resources, whereas man can, and often does, rebel not only against situations which can be overcome by his limited power but also against situations which he cannot overcome at all. Furthermore man's rebellion against the inevitable may not be momentary but a matter of days, months, or years. Analogous situations can not be produced in the laboratory. He suggests (though agreeing that the data is insufficient for proof beyond a reasonable doubt) that menacing influences which may be surmounted give rise to an emotion in which the predominant physical manifestations are due to stimulation of the sympathetic; and that those which are unsurmountable give rise to an emotion in which the manifestations

are due to stimulation of the parasympathetic.

White, Cobb, and Jones⁵ in 1939 exhaustively studied a series of 60 patients admitted to the medical service of the Massachusetts General Hospital with the diagnosis of mucous colitis, in order to evaluate the evidence for and against the hypothesis that the syndrome was a vegetative neurosis often precipitated by emotional tension. The syndrome, as described by the authors, consists essentially of gastro-intestinal symptoms predominantly referable to the colon. In all cases there is at some time constipation or diarrhea, accompanied by abdominal pain and the passage of stools of small calibre. Constipation is usually the first symptom. Accompanying the diarrhea there is often the passage of long strings of mucus or of mucous casts of the bowel. In most instances there is a palpable and tender sigmoid. The authors mention that in 67% of their series the diagnosis was arrived at promptly, with such mis-diagnosis as gall bladder disease, peptic ulcer, genito-urinary infection, and appendicitis being made in the others. The average age of onset was 25 years; of hospital admission 35 years. Laboratory examinations, except for the procedures of sigmoidoscopy and, in a few cases (18%), of barium enemata, revealed no abnormalities.

The sigmoidoscopic picture was recognizably abnormal in 89% of the cases, with changes ranging from slight injection, spasm and mucous secretion to marked injection, spasm and presence of dry tenuous mucus peeling off the mucosa with difficulty and leaving small granular indentations in its wake. The authors state that this picture is not specific but may occur as the result of repeated irritant enemata, may be seen in acute infectious enteritis, or in local lesions such as diverticulitis. The signs are really only those of chronic irritation, which may be and, in many instances, is mediated through the parasympathetic nervous system.

They were able to substantiate this statement by the results of observation of the reactions of the normal mucosa to irritants and drugs applied locally as well as administered orally. They found that there was no characteristic change in mucous colitis, which was not represented experimentally; the most similar being the changes following oral administration of acetyl-beta-choline chloride.

Due to the non-fatal character of the disorder histopathological study is infrequent, but from the limited material available there appears to be a similarity of the picture to that of bronchial asthma—a marked increase in secretion of mucous from the intestinal glands, without evidence of infiltration of leucocytes or of muscular spasm or hypertrophy.

In discussing the possible causative factors the authors state that the syndrome may fairly be said to result from hyperirritability of the sigmoid colon, and all factors which contribute to this hyper-irritability may be said to be etiological in their effect. Some of the contributing factors apparently act directly on the mucosa of the colon (cathartics, high cellulose food, other drugs, bacteria), others in an unknown manner in the local tissue (allergens—food proteins in about 4% of cases, but not bacterial proteins), and still others through autonomic nerve fibers (emotional tension, excessive exercise, and exhaustion). There may be others still unknown.

In the series of cases under consideration there were only four in which psychogenic factors could not be found. At the same time there were certain characteristics of these patients which were strikingly common. Foremost was the physical fact of autonomic instability, as evidenced by numerous symptoms. It was not possible to completely differentiate the patients into sympathico-tonic or vagotonic, there appearing a dysfunction rather of the whole autonomic than a hyperfunction of either component alone. Diminution in energy output, evidenced by greater sleep requirement, easier fatigability, and high incidence of sexual indifference, was characteristic. The patients were "soft" and out of training; the syndrome being rarely encountered among persons doing hard manual labor. In addition there were evidences of increased tension of the central nervous system, both physiological (indicated by muscle tension, tremor of extremities, hyperactive tendon reflexes, and restlessness, and psychological, which the authors call general manifestations of nervous excitability, as compared with the specific manifestations in the autonomic system. Although of theoretical possibility, the actual occurrence of generalized nervous tension as a complication of purely neurogenic disease is infrequent. On the other hand psychogenic causes of tension are relatively frequent, in both so-called normal persons and in neurotic cases.

As has been found by other observers most of the patients in this series were not frankly "neurotic" and did not fit into any of the formal psychiatric classifications. From the dynamic viewpoint it is likely that the different types of psychoneuroses do not represent disease entities but rather psychological reaction patterns, with the result that symptoms of different patterns may often be seen in the same patient. The authors feel that this is why the clinical "labels" failed to indicate the personalities of these patients, for, although they could not be psychiatrically classified there were definite similarities in their personalities.

In the first place, a tendency toward excessive neatness, compulsive completion of tasks, meticulous care in avoiding errors, and over conscientiousness in meeting obligations was distinctly a characteristic of the group. The sense of conscientiousness from whatever strata of the personality structure it derives, was strikingly developed. There were few shirkers in the series. There were on the contrary many painfully thorough persons, unsparing of themselves and of others in their demands for perfection. There were no persons with conspicuously independent characters. The great majority were definitely dependent. Their thinking for which the term "obsessive thinking" was coined denotes an admixture of qualities which comprise rigid adherence to an idea, indecision in the face of a dilemma, and rumination over failure of choice in the dilemma.

There was no correlation with feeling tone, some being warm and friendly, others cold and egocentric. Lability of mood was strikingly frequent. The closest approach to a psychiatric diagnosis for these patients would be that of anxiety or tensional state.

The authors point out that tension may occur in such primarily physical states as hyperthyroidism, paralysis agitans, and the menopause, or it may occur psychologically in association with any of a large number of emotions; guilt, fear, resentment, excitement, anticipation, sorrow, dread, etc. In this study the emotions most commonly associated with tension were: resentment, fear, and guilt in that order. The psychogenic tension is likely to result whenever irreconcilable antagonistic forces are simultaneously at play (for example the horns of a conscious dilemma between which a decision must be reached); or may develop in the case of a currently existing situation from which there is no escape

but which is intolerable to one or another part of the personality (such situations may be on a neurotic basis, or established in the coldest of reality). In these patients the tension, which occurs from time to time in all normal persons, seemed to be modified so as to become more damaging. Instead of responding to unpleasant situations by retaliation it was characteristic of them to suppress the urge, with the resultant development of feelings of restlessness colored by resentment, guilt, or anxiety rather than by dissipation of the tension. In addition it was noted that these people, in common with other overly conscientious persons, were more easily moved to anxiety in response to inner or outer criticism (increase in intensity of tension). Finally through their rigidity of thought the tendency to bear resentment or remain in indecision for long periods of time was characteristic (increase in duration of tension).

In briefly summarizing their findings the authors reiterate their belief that mucous colitis is a physiological disorder of the colon brought about through the action of the parasympathetic nervous system, wherein the development of the localized changes is predisposed by certain physiological and pathological states in the human organism. These include anthropological habitus, physical training, the presence or absence of infectious disease, allergy, and fatigue. The commonest source of parasympathetic overstimulation in patients with mucous colitis is emotional tension, and there are certain specific characteristics of the personality which appear to predispose to the development of this tension. These characteristics are overconscientiousness, dependence upon the opinions of others, and sensitivity.

Treatment, as a result, is necessarily difficult, and involves no one specific drug, but rather entails a broad understanding of the whole make-up of the patient, physical, nervous and mental. It includes physical hygiene, mental hygiene, and in certain instances drug therapy. In some cases there are dramatic results, in others progress is slow but usually toward improvement.

In their discussion of general psychological considerations the authors mention the fact that Alexander⁶ has hypothesized and supported with a certain amount of evidence the idea that patients with disorders of the upper gastro-intestinal tract have fundamentally different personalities from those with lower genito-urinary dis-

ease. In the present series there were found three patients who also suffered from peptic ulcer. In addition to these, five patients with cardiospasm were studied. Without exception these patients presented to the medical observer a much greater degree of activity, independence, and efficiency (Alexander's criteria of the gastric type) than did those with uncomplicated mucous colitis. Superficially this finding is in accord with Alexander's conception. No attempt was made to investigate in detail patients suffering primarily from upper G. I. tract disease, so no definite conclusions were offered.

Such work is representative of our present day attempts to gain more precise information in a still poorly charted area of knowledge.

Both of these papers call attention to some of the problems inherent in this type of research. One speaks of the fact that, although by convention the scientific method (cause-effect) is employed in most medical research, two difficulties arise when attempting to apply it to study of the psychoneuroses. In the first place there is the lack of proven analogy between psychoneurotic-like states in animals and true psychoneuroses in humans. The fallacy of transferring conclusions reached from animal experimentation to human behavior has also been pointed out by certain of the English neurologists. Then in the second place there arises the undesirability, if not the impossibility, of deliberate production of psychoneuroses in man. As a result, study of the psychoneuroses must be made as they spontaneously present themselves; as experiments of nature, so to speak. Conclusions drawn thusly, are a posteriori rather than a priori. This may be fully as valid but requires working with a much larger series of experiments to avoid error. This very fact brings up another difficulty. When dealing with a number of cases large enough to obtain statistical significance the tendency is perhaps to relate various social or psychological mishaps to the appearance of symptoms in a relatively superficial manner. This leaves out of consideration the personality who receives the impacts. To determine the effect of social experience it is necessary as well to know something about the individual personality on whom the unpleasant influence or situation impinges. In psychiatry especially one must deal with values as much as with facts; the objective fact being not

so important as the way in which it is experienced. Development of a technique which can produce such information in a large series of cases over a relatively short period of time has been imperfect to say the least.

In spite of these difficulties there is no question about the need for a better understanding of a group of patients who have continued to flock to clinics and private offices year after year without being benefitted in any consistent way by our scientific remedies. This type of recently published material though admittedly not a final answer, seems to point so significantly in the right direction that we have during the past year laid more and more stress upon it in our teaching of the medical students.

Furthermore, we have rather recently had the opportunity to observe on our service three patients in whose complaints the syndrome of mucous colitis played a prominent part. One was a white man of 51 who had suffered from diarrhea and abdominal pain since childhood. Customarily he passed ten to twelve loose stools per day. His condition would be aggravated by eating of certain foods (especially of high cellulose type), by emotional excitement, by change of season (temperature shift) and by increased local irritation (examination procedures). While nominally admitted to the hospital because of thirty years' paragoric addiction it was obvious that what bothered him most was the intestinal complaint. While in his own estimation he was not given to resentment or indecision, his appearance was that of a small, neatly dressed, anxious, but innocuous man who was anything but independent and forceful. Unfortunately no detailed estimation of his personality was obtained from sources other than himself. In recent years he had had little or no physical exercise and recalled that he could always do with more than the average amount of sleep. In the hospital he was listless and lethargic, spending most of his time lying down. Physical examination disclosed hypermotility of the gut and generalized hyperactivity of tendon reflexes, in addition to sigmoidoscopic evidence of a chronically inflamed mucosa. No pathogenic organisms were found on repeated examination.

During a hospital admission six and one half years previously his diarrhea had improved slightly (down to 6 movements per day) on a markedly restricted diet,

but the condition relapsed one week after discharge. During his recent admission he noted some degree of improvement following local medication (argyrol enema-ta) though complaining that the treatments, at the time given, temporarily increased his symptoms. However, after institution of psychotherapy, a bland diet, and tincture of belladonna medication there was noted a marked improvement (down to 2-3 bowel movements per day). Since discharge the improvement has continued with the small exception that the patient noted an increase to four bowel movements on the day of his first return visit to the clinic. This he reported as due to definite tension (sitting about waiting to leave home, etc.) in anticipation of the visit. It did not occur at the time of his second return. The patient has not gone back to his paregoric addiction, and is grateful, to put it mildly, for this two month (to date) remission of symptoms; the longest free period he has experienced in years.

Another patient was a 49 year old colored woman, who placed the date of onset of her symptoms as approximately 9 years previous to admission, at which time she noted menopausal changes. However, she had been "nervous" from childhood. Her complaints were voluminous and included feelings of "gas" and fullness after eating, constipation, passage of stringy mucus and ribbon-like stools, smothering spells often accompanied by fear of death, general anxiety, consciousness of heart pounding, tenderness and sensation of pounding in abdomen, vague aches and pains all over thorax and abdomen, and occasional headaches. In order to relieve the "gas" and constipation she took increasingly larger and more frequent doses of cathartics without which she would go four or five days without a bowel movement, but with which she noted no great improvement either. After attending the O.P.D. intermittently for four to five years, the patient was admitted to surgery five months previous to the present admission, at which time a nephropexy (right) was performed. The operation was followed by no relief from symptoms. Thereafter she began to cut down markedly on her food intake as she felt not eating relieved her somewhat. At the same time dieting was followed naturally by a severe weight loss, necessitating readmission to the medical service from which she was transferred to psychiatry.

Physically the patient was definitely emaciated, but with a typically asthenic build. She showed many evidences of autonomic instability. Sigmoidoscopically there was mild injection of the rectum and lower sigmoid. During her series of hospital admissions she had had the routine blood and urine examinations, and in addition X-rays of the chest, EKG, GI series, gastric analysis, sputum examination, cystoscopy, intravenous and retrograde pyelography, and urine culture. The positive findings of slightly delayed cardiac conduction time, and marked visceroptosis (kidney ptosis being the basis for operation) were not considered sufficient physical findings to account for the many symptoms.

The patient was definitely an indecisive, weak, dependent type of person who held resentment, but did not become overtly aggressive. Years previously when her first husband would argue with her and throw dishes at her, she would become angry, but always repressed any retaliation. She admitted that perhaps if she had thrown plates back at him she would have felt better.

Treatment, combining psychotherapy, belladonna medication and a bland diet, with the addition in this case of small doses of insulin, and vitamine therapy produced considerable improvement so that at the end of two months the patient has gained weight, sleeps well, is no longer constipated, and complains only occasionally of "gas" and "nervousness." She feels better than she has felt for some years, even though she is not completely free of symptoms.

The third case was that of a 36 year old colored woman who came to the out patient department with complaints of recurrent abdominal pain of three years duration, becoming more acute one and a half months previously. She had noted the passage of mucus and pencil-like stools for about two years. Although she has not as yet been studied sufficiently long to form an opinion, X-ray examination has disclosed the presence of a peptic ulcer. Her personality at first glance appears to tend more toward the independent, efficient type than do those of the two other patients.

This small series is in accord with the findings of other authors, but like theirs still leaves many questions and details unanswered. We can agree with one of them (5) who, in commenting upon a psy-

choanalytic interpretation, says, "if it can be proved that all these types are responses to a traumatic weaning, then psychoanalysis may well claim to have established an important step in the development of a large percentage of disorders of the ego or character. Until that step is established one can only describe the inadequacy of the ego, the types of adjustment which are made to it, and the clinical correlation of the symptoms."

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BOOK REVIEWS

THE PHYSICIAN'S BUSINESS, PRACTICAL AND ECONOMIC ASPECTS OF MEDICINE.—By George D. Wolfe, M.D., Attending Otolaryngologist, Sydenham Hospital, New York City, and the Riverside Hospital; Fellow New York Academy of Medicine, and the American Medical Association. Foreword by Harold Rypin, A.B., M.D., F.A.C.P. 57 illustrations in the text. J. B. Lippincott, West Washington Square, Philadelphia, Publisher. Price, \$5.00.

The author discusses the practical and economic side of medicine, it is not a small book but a truly inclusive reference work on the business side of practice. This volume presents a comprehensive exposition of such varied subjects as fees, equipment, legal entanglements and rights, professional and hospital relationships, nurses' emergency duties, instructions to patients, and insurance. A doctor will not buy a gold brick and will be a better business man after reading this book.

PRIMER OF ALLERGY. A guide book for those who are allergic and who wish to find the way to health, By Warren T. Vaughan, M. D., Richmond, Va., Author of Allergy and Applied Immunology Practice of Allergy, with illustrations by John T. Tallery. C. V. Mosby Company, Publishers, St. Louis, Price \$1.50.

This volume explains in simple terms the kind of changes that seem to occur when one becomes allergic or develops idiosyncrasies.

It explains how to cooperate with the physician in order to obtain most rapid and permanent relief. It is an authoritative book because of the large experience of the author in the field of allergy.

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NEXT MEETING: LEXINGTON

SEPTEMBER 16-19, 1940

KENTUCKY'S PRENATAL LAW
BECOMES EFFECTIVE

On June 12, 1940, the Kentucky Prenatal Law became effective. Every physician in the State has received a communication from the State Department of Health, calling this fact to his attention and carrying a list of the first group of laboratories approved by the State Commissioner of Health of Kentucky for the performance of serodiagnostic tests for syphilis under the prenatal law. This list will, no doubt, be enlarged, from time to time, as other laboratories apply for evaluation and approval.

The law requires that serological tests for syphilis be performed on all pregnant women and that the tests be done in laboratories approved by the State Commissioner of Health. It is hoped that approved private laboratories of the State will be utilized, whenever possible, in the performance of serological tests for the detection of syphilis.

In standardizing the first group and the succeeding groups, the standards of the National Committee on Evaluation of Laboratories for the Serodiagnosis of Syphilis are used. Such an evaluation is of inestimable value to the laboratories themselves, to the physicians and to the public. Laboratories which are not reasonably specific are likely to condemn as syphilitics persons who do not have the disease; laboratories which are not reasonably sensitive are apt to fail to find all the cases of syphilis that they should find. To be of lasting value to the physicians and laboratories in particular, and to the public in general, evaluations must necessarily be done annually. This, the State Department of Health with the cooperation of the laboratories throughout the State will attempt to do. Although the procedure is time consuming and expensive, it is thought that the effort is worthwhile.

The law has as its objective the prevention of syphilis in unborn children. Many of the 1966 stillbirths last year in the State could have been prevented and many of the 3,175 children who died in the first year of life last year would now still be living, if we had had an effective law for finding syphilis among the mothers of unborn children.

It is hoped that all physicians will cooperate, in every possible way, to make this law effective in safeguarding future Kentucky children.

Following is the list of laboratories that

have successfully completed standardization tests. As others are added, they will be listed and published in the JOURNAL.

Dowden and Dowden Laboratory, Brown Building, Louisville

Wm. Kenney Laboratory, Fifth Street, Paris

Kentucky Baptist Hospital Laboratory, Louisville

The Lexington Clinic Laboratory, 100 North Upper Street, Lexington

Louisville City Health Department Laboratory, City Hospital, Louisville

Martin & McNeill Laboratory, Brown Building, Louisville

Wm. Mason Memorial Hospital Laboratory, Murray

Muhlenberg Community Hospital Laboratory, Greenville

Norton Infirmary Laboratory, Norton Infirmary, Louisville

Paintsville Hospital Laboratory, Paintsville

Riverside Hospital Laboratory, Riverside Hospital, Paducah

State Department of Health Laboratory, 620 South Third Street, Louisville

Harry M. Weeter Clinical Laboratory, Heyburn Building, Louisville

KENTUCKY HONORED

It is with a great deal of pride that the Journal records the reelection of Dr. Virgil E. Simpson to the Committee on the Revision of Pharmacopoeia at the meeting held in Washington recently. Dr. Simpson has represented the Association in this group for twenty years and for the past ten years, has been an active member of the revision committee. His reelection is a recognition of his arduous and distinguished services. The pharmacopoeia is now kept up to date. The pharmacopoeial revision committee is a distinctly scientific organization, and it is a very great honor for Kentucky to have one of its active members.

ARMY EXPERIENCE FOR PHYSICIANS

An interesting medical corollary to the augmentation of the United States Army during 1940 and 1941 and to the planned large scale Army maneuvers during the spring and summer of 1940 is the broad medico-military experience which a great number of civilian physicians will receive. Medical Reserve officers are being used to augment the entire Army Medical Service, which includes everything from small

unit installations to large Station Hospitals, General Hospitals, and hospitals designed primarily for the treatment of specific types of cases.

Physicians under 35 years of age who are desirous of obtaining extended active duty with the Army but who do not hold Reserve commissions are being offered appointments in the Medical Corps Reserve in the grade of 1st Lieutenant, in order to permit them to be placed on such duty. Captains and Lieutenants are at present being offered excellent assignments throughout the continental United States, and it is hoped that authority will be granted to actually permit some officers to go to Hawaii and Panama. In addition to having a new and very busy experience in the practice of medicine, the average officer finds the pay and allowances attractive. The pay and allowances for a married 1st Lieutenant amount to approximately \$263.00 a month; for a single 1st Lieutenant to approximately \$225.00 a month for a married Captain to approximately \$316.00 a month; and for a single Captain to approximately \$278.00 a month. In most cases the above pay and allowances would apply inasmuch as Government quarters are not usually available for officers on extended active duty. In addition, the officer is reimbursed for mileage traveled from his home to his station, and upon completion of his tour of duty is reimbursed similarly for the travel to his home.

Application for one year of active duty, or for appointment in the Medical Corps Reserve with a view of obtaining one year of active duty with the Army, should be requested by a letter addressed to the Commanding General of the Fifth Corps Area, Fort Hayes, Columbus, Ohio.

GOOD-BYE "CC"

Many of the older doctors regretted the passing of the terms drop, dram and ounce, when the new terms cubic centimeter, gram and milligram came into existence. Now cubic centimeter ((cc) is also on the way out. Following action by the American Chemical Society and many other scientific associations, the term "milliliter" (abbreviation ml) has been adopted generally for all purposes where the older term "cubic centimeter" (abbreviation cc) was formerly employed. The liter is the unit of volume occupied by a quantity of pure water having a mass of one kilogram

at 4 degrees C., and one milliliter is one one-thousandth part of a liter. One cubic centimeter is not exactly one one-thousandth part of a liter since one milliliter equals 1.000027 cubic centimeter.

Although this difference is of no moment in routine procedure, the use of the term "cubic centimeter" will gradually be discontinued, as it is not the correct designation for one-thousandth of a liter, the standard unit of volume. Do not be surprised when your vaccine bottles give dosage in "milliliter" (ml) in place of "cubic centimeter" (cc). Of course, the term "cubic centimeter" will be included for the time being in parenthesis following the designation "milliliter."

A. P. H. A. MEETING

The 69th Annual Meeting of the American Public Health Association will be held in Detroit, Michigan, October 8-11 with the Book-Cadillac Hotel as headquarters.

The Michigan Public Health Association, the American School Health Association, the International Society of Medical Health Officers, the Association of Women in Public Health, and a number of other allied and related organizations will meet in conjunction with the Association.

The Annual Meeting of the American Public Health Association is the largest and most important health convention held on this continent. It will bring 3500 health officials to Detroit for a series of scientific meetings covering all phases of health protection and promotion. A Health Exhibit will be held in connection with the meeting and an Institute on Health Education is scheduled prior to the official opening. Every physician in Kentucky is extended an invitation through the Journal to attend this meeting.

INTRIGUING OPPORTUNITY

The Virginia and West Virginia State Medical Associations will hold a joint meeting at White Sulphur Springs on July 29th through 31st. White Sulphur Springs is one of the real beauty spots of the world and it is always a pleasure to be there any season of the year. A joint session of these two Associations is an opportunity of more than usual significance. West Virginia was an integral part of the Old Dominion until it was ruthlessly separated from it by

the exigencies of the Civil War. The civilization represented by both States is still a common heritage of all of us in Kentucky, and Kentuckians have a very close kinship with these two States.

We feel that a representative group of Kentucky doctors will attend this session for historic and sentimental reasons and because of the scientific interest of the program.

WHAT MAKES A PROFESSION?

W. A. Shumaker, Editor of Law Notes, is quoted in the Journal of the American Medical Association as follows:

"If there is such a thing as a profession as a concept distinct from a vocation it must consist in the ideals which its members maintain, the dignity of character which they bring to the performance of their duties, and the austerity of the self-imposed ethical standards. To constitute a true profession there must be ethical traditions so potent as to bring into conformity members whose personal standards of conduct are at a lower level, and to have an elevating and ennobling effect on those members. A profession cannot be created by resolution or become such over night. It requires many years for its development, and they must be years of self denial, years when success by base means is scorned, years when no results bring honor except those free from the taint of unworthy methods."

EXHIBIT COMMITTEES

One of the most pleasing features of the past State Meeting at Bowling Green was the splendid scientific exhibits. For the coming annual meeting in September Dr. Virgil E. Simpson, Louisville, will again act as chairman of the committee on Scientific Exhibits. Dr. Simpson will welcome correspondence from members who are interested in having an exhibit of any description. Write to him immediately to reserve space.

Dr. Stanley S. Parks, Lexington, is Chairman of the Committee on Doctors' Arts and Hobbies. The wide variety and excellence of the exhibits made under the auspices of this committee add to the enjoyment of each annual meeting. Those who attended the American Medical Association in New York City this year will recall the general interest shown in an exhibit of a similar nature there. Whatever hobby you have, let the members enjoy it with you.

OFFICIAL ANNOUNCEMENT

PRELIMINARY PROGRAM

KENTUCKY STATE MEDICAL ASSOCIATION

LEXINGTON

September 16, 17, 18, 19, 1940

Tuesday, September 17

9:00 A. M.

Call to Order by the President

Invocation

Address of Welcome

Response

Installation of President

Report of Committee on Arrangements,
C. A. Vance, Chairman.

SCIENTIFIC SESSION

Tuesday, September 17

10:00 A. M.

CASE REPORTS

1. Tumor of Small Intestine.....
..... Herman Mahaffey
Louisville

Discussion opened by.....

..... Malcom Thompson
Louisville

2. Parathyroid Tumor, R. Arnold Griswold
Louisville

Discussion opened by..Harper Richey
Louisville

3. Adrenal Tumor....Joseph E. Hamilton
Louisville

Discussion opened by.....

1. Some Behavior Problems in Infancy
and Early Childhood...W. F. Lamb
Russellville

Discussion opened by W. W. Nicholson
Louisville

2. Prophylactic Measure During Child-
hood and Choice of Preparation
.....C. D. Cawood
Lexington

Discussion opened by....James Bruce
Louisville

3. Vitamins—Their Use in Children..
..... T. J. Marshall
Paducah

Discussion opened by..Harry Andrews
Louisville

SPECIAL ORDER

Tuesday, September 17

12:00 M.

ORATION IN SURGERY

Lung Abscess Allen E. Grimes
Lexington

SCIENTIFIC SESSION

Tuesday, September 17

2:00 P. M.

1. Appendicitis in Children
..... James Pritchett
Louisville
Discussion opened byChas. Vance
Lexington
2. Obscure Fevers H. V. Noland
Louisville
Discussion opened by..Virgil Simpson
Louisville
3. Uterine BleedingJos. Henry
Louisville
Discussion opened by.. C. W. Hibbitt
Louisville
4. An Evaluation of the Present Status
of Male Hormone Therapy.....
..... James R. Hendon
Louisville
Discussion opened by Clayton McCarty
Louisville

Tuesday, September 17

8:00 P. M.

Subject Nathan B. Van Etten
New York

Surgical Consideration of the Gall Blad-
der and Bile Ducts..Arthur W. Allen
Boston, Mass.

SCIENTIFIC SESSION

Wednesday, September 18

9:00 A. M.

1. Chemo-Therapy In Urological Cases
..... J. A. Bowen
Louisville
Discussion opened byD. E. Scott
Lexington
2. Differential Diagnosis of Breast Tu-
mors J. A. Ryan
Covington
Discussion opened by....Louis Frank
Louisville
3. Gastroscopy as an Aid in the Diagnosis
of Stomach Disease..Sam Overstreet
Louisville
Discussion opened by....Clark Bailey
Harlan
4. Indication of Surgery and Choice of
Operation in Peptic Ulcers
..... Fred W. Rankin
Lexington
Discussion opened by ..Irvin Abell, Sr.
Louisville

SPECIAL ORDER

Wednesday, September 18

12:00 M.

ORATION IN MEDICINE

The Evolution of Our Knowledge of
Tuberculosis Oscar O. Miller
Louisville

SCIENTIFIC SESSION

Wednesday, September 18
2:00 P. M.

1. Syphilis—Its Modern Management..
.....R. E. Teague
Paducah
Discussion opened by...F. W. Caudill
Louisville
2. Hoarseness, an Important Symptom,
.....Shelton Watkins
Louisville
Discussion opened by..M. G. Buckles
Louisville
3. Joint FracturesG. Y. Graves
Bowling Green
Discussion opened by..G. L. Simpson
Greenville
4. Scalenus Anticus Syndrone
.....Franklin Jelsma
Louisville
Discussion opened byJohn Stites
Louisville

ANNUAL SUBSCRIPTION DINNER

Wednesday, September 18
6:30 P. M.

President's Address Austin Bell
Hopkinsville

Address: "Management of Patients with
Acute Myocardial Infarction" ...
.....Tinsley R. Harrison
Nashville, Tenn.

SCIENTIFIC SESSION

Thursday, September 19
9:00 A. M.

1. Diabetes—Evaluation of the Various
InsulinsC. C. Turner
Glasgow
Discussion opened byLyne Smith
Louisville
2. The Problem of Drainage Following
Operation in the Bile Passages...
.....J. G. Gaither
Hopkinsville
Discussion opened by ..E. W. Jackson
Paducah
3. Applied Pathology of the Paranasal
SinusesW. A. Weldon
Glasgow
Discussion opened by...Samuel Marks
Lexington

4. Vomiting of Early Pregnancy
.....E. P. Solomon
Louisville
Discussion opened by Stanley S. Parks
Lexington

SCIENTIFIC SESSION

Thursday, September 19
2:00 P. M.

1. Edema—Types and Management ..
.....L. T. Minish
Frankfort
Discussion opened by C. N. Kavanaugh
Lexington
2. Weight ControlR. N. Holbrook
Louisville
Discussion opened byJohn Harvey
Lexington
3. Early Diagnosis and Treatment in
NeurosyphilisJ. H. Rompf
Lexington
Discussion opened by..Arthur Kasey
Lakeland
4. The Treatment of Appendiceal Peri-
tonitis Woolfolk Barrow
Lexington
Discussion opened by E. Dargan Smith
Owensboro

COUNTY SOCIETY REPORTS

Jefferson: The following resolutions
were passed at the regular meeting:

Whereas, there is a growing tendency to
patent drugs in the name of universities and
foundations in connection with universities: and

Whereas, these patents are presented to the
institutions by the discoverers; and

Whereas, the discoverers of the products are
usually medical men; and

Whereas, the effect of the patents is to in-
crease the price of the drugs because of the
royalties imposed by the said foundations; and

Whereas, a considerable proportion of pat-
ients in need of the new products are prevented
from buying them by reason of the necessarily
high prices asked; and

Whereas, this hardship is imposed upon the
needy public through the acts of the discoverers
under the guise of foundations;

Be It Resolved, that the Jefferson County
(Kentucky) Society condemns as unethical the
patenting of drugs or medical appliances for
profit whether the patent be held by a physician
or be transferred by him to some university or
medical research foundation, since the result is
the same, namely the deprivation of the needy
sick of the benefits of many new medical dis-

coveries through the acts of medical men; and

Be It Further Resolved, that copies of these resolutions be sent to the leading medical associations and journals and the leading medical colleges of the United States and Canada.

W. B. TROUTMAN, Secretary.

Jefferson: Resolutions upon the death of Doctor Richard M. Jones, 1869-1940.

Whereas: After "three score years and ten" it has pleased Almighty Providence to terminate, the Earthly career of our fellow-physician, Richard M. Jones, who was of the Class of 1893, of the Medical Department of the University of Louisville, and who was an active practitioner of Medicine, in Louisville, until called Home, April the first 1940; and

Whereas: This Society deeply deplores the loss of its Fellow, and wishes to extend fraternal sympathy to the bereaved members of his family, to his many patients and to the friends; therefore be it

Resolved: That this Society draft resolutions of its loss and of its sympathy; and that a copy be spread upon the minutes of the Jefferson County Medical Society; and that a copy be sent to the grieving family; and that a copy be sent, through the papers, to the many sorrowing patients.

His ardent efforts and his hopeful smile

Each comrade and each suffering patient did
Beguile to earnest ardor to help rid
Man's life of ills and feel its joys awhile.

Each true physician lives a life of trial,

As on his way, his art he proves amid
The battling world, where fearful cures is hid
That robbed of Paradise to give earth's style.

Full blest and plenteous were his talents grown

In helping ease the sorrows of mankind
While waiting on this mundane sphere of toil.

Full well he wrought the blessings so well known,
And, thus, with those his art to him did bind,
Nought can the way to Paradise now foil.

R. Alexander Bate, Chairman
Octavus Dulaney,
Clyde McNeill.

Johnson: The Johnson County Medical Society met on Tuesday, May 28, 1940, at Paintsville. The meeting consisted of a Pediatric Clinic in the afternoon in charge of Drs. Phillip Barbour of Louisville, assisted by Oma Creech, Louisville; W. T. Maxson and A. J. Alexander, Lexington; A. D. Slone, Lon. C. Hall, L. B. Sheppard, H. G. Skaggs, G. P. Salyers of Paintsville, and the Johnson County Health Department Nurses. There were forty-six children through the clinic

and many interesting cases seen. The climax of the meeting was a banquet at the beautiful Paintsville Country Club, served by the local Chapter of the Eastern Star. The Society had as their guests the Nurses, Dentists, and Doctors from this county and surrounding counties. The idea of this banquet is being to get a better feeling between these professions. Dr. A. D. Slone acted as toastmaster and the following program given: Meningococcic Meningitis, W. T. Maxson, Lexington; Infant Care, A. J. Alexander, Lexington; "What the Doctor and Nurse Should Know About Dentistry," A. G. Nevitt, Lexington; Heart Disease in Children, Phillip Barbour Louisville. The following members of the Society were present: Drs. P. B. Hall, Lon C. Hall, L. B. Sheppard, J. H. Holbrook, J. A. Wells, W. E. Akin, F. M. Picklesimer, Charlie Shields and A. D. Slone. There were fifty visitors present.

Warren-Edmonson: The Warren-Edmonson Medical Society met on Wednesday evening, May 29th, at the Helm Hotel with the secretary, W. O. Carson, presiding. Following a very luscious repast the society spent a most pleasant and profitable evening listening to papers and viewing slides. Dr. Forester of Louisville led off with a very interesting paper on Modern Treatment of Middle Ear Disease. The discussion was led by T. H. Singleton and W. P. Drake. Charles Wood of Louisville next presented a most interesting paper with charts and X-rays in connection with Injuries to the Knee Joint. The discussion of the paper was led by L. O. Toomey and G. Y. Graves. Woolfolk Barrow of Lexington Clinic presented a most excellent paper and discussion on Treatment of Thrombophlebitis and Vascular Diseases of the Extremities. The discussion was led by W. O. Carson and Bryant Helm.

W. O. Carson, Secretary.

NEWS ITEMS

The Michael Rose Hospital Cardiovascular department offers a full time intensive course in Electrocardiography for two weeks August 19-31, by Louis N. Katz, Director of Cardiovascular Research, Chicago. Physicians who are interested in this course may obtain all information by writing to the above Hospital at 29th and Ellis Avenue, Chicago.

Dr. C. C. Howard, Glasgow, recently addressed the Rotary Club in Bowling Green and showed screen pictures made in France of the American Expeditionary Forces during the World War, and gave a vivid description of the manner in which American soldiers were convoyed to France without the loss of a transport ship. The speech was enthusiastically received by the entire club.

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PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

THE TREATMENT OF THROMBOPHLEBITIS

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Of the unfortunate complications of medical or surgical care, none is more distressing than thrombophlebitis. And although thrombophlebitis has long been regarded as of particular interest to obstetricians and surgeons, alone, in reality, it is encountered at one time or another in almost every branch of medical practice. It is a not infrequent complication in patients with infectious diseases, such as typhoid fever, pneumonia, or specific pelvic inflammation or cachexia from any cause. Thrombophlebitis may occur in any region of the body, but it occurs most frequently in the veins of the leg, and for purposes of convenience the discussion in this paper will be limited to that occurring in either the superficial or deep veins of the leg.

Thrombophlebitis in superficial veins may occur as a septic process arising from adjacent foci, as a postoperative complication, or spontaneously. As a septic process arising by direct extension from a contiguous source of infection, it is rare. Lateral sinus thrombosis in association with infection of the mastoid is perhaps the best example of this, but it does occur elsewhere and when found in the superficial veins of the leg, excision of the septic clot will reduce the danger of septicaemia and relieve the patient's discomfort. Matyas² found post-operative superficial thrombophlebitis in 0.5 per cent of the patients with normal veins and in 6 per cent of the patients with varicose veins. According to Nobl¹⁴, approximately one in each one hundred and fifty fatal post-operative pulmonary emboli arise from superficial veins. Spontaneous thrombosis in normal superficial veins is almost unknown, but is quite frequent in patients with well defined varicose. Indeed, it is probable that every patient with varicose veins would have varicose thrombophlebitis and varicose ulcer if treatment were long enough delayed.

As Aschoff¹ has shown from experimental and pathological observations, slowing of the blood stream, damage to the intima, an increased tendency to agglutination of the cells and increased coagulability of the blood are the factors which favor

thrombosis, all of which occur in varicose veins with their damaged intima, slow or stagnant stream and blood laden with metabolic products as in no other place in the body. But regardless of whether superficial thrombophlebitis occurs in veins already varicose or not, the ultimate result in either instance is identical, for thrombophlebitis per se results in destruction of venous valves, incompetence of the vein and varicosities in the area so affected. (Edwards³). And although when superficial thrombophlebitis occurred in previously normal veins, subsequent varicose veins appear as rigid, thick-walled tubes, made incompetent by inflammatory destruction of valves, rather than the more frequently encountered tortuous, thin-walled varicosities due to overdilatation of the lumen, the alterations in vascular physiology and the type of treatment indicated in the two are identical.

The manifestations of superficial thrombophlebitis are largely local in nature and consist of pain, tenderness, redness and increased heat confined to the segment of vein affected. Although the exact mechanism of these symptoms is not entirely clear, they are presumably not due to bacterial infection except in rare instances. Neither smear nor culture of the thrombi in these veins reveal bacteria⁴. Lung infarcts arising from thrombophlebitis do not go on to suppuration and operative procedures on these veins are not followed by septic wounds. Histologic examination of the wall of such a vein will reveal very little exudate and no polymorphonuclear leukocytes, only a few round cells⁵. On the other hand, there is evidence to show that the symptoms of thrombophlebitis may be due to irritation of sympathetic nerve fibers with a resulting vaso-spasm. That such an explanation is possible has been demonstrated by DeBaakey, Burch and Ochsner, who found that localized chemical phlebitis would result in marked arterial spasm or vaso constriction, and that this could be prevented by sympathectomy or procaine block of sympathetic nerves. Furthermore, the symptoms of the patient with thrombophlebitis either superficial or deep can be relieved by procaine block of the sympathetic nerve fibers innervating the affected region. 7, 8, 9, 10, 11, 12, 13

In the treatment of patients with superficial thrombophlebitis we prefer immediate ligation of the long saphenous vein at the sapheno-femoral junction. For, although it is true that conservative meas-

ures such as elastic compression either in the form of elastic adhesive strapping or Unna's paste boot will relieve the patient's symptoms, those do nothing to eliminate the danger of pulmonary embolus or cure the varicose veins which will follow. By ligation of the long saphenous vein on the other hand, the patient's symptoms are relieved, for the sympathetic nerve fibers supplying the affected segment of vein travel in close proximity to the long saphenous vein itself and enough of these fibers are interrupted by the operative manipulation to produce symptomatic relief. Symptomatic relief in superficial thrombophlebitis may also be obtained by novocaine block of the lumbar sympathetic ganglia on the affected side. This procedure, however, may have to be repeated more than once, whereas surgical intervention does not. Furthermore interruption of the long saphenous vein at the saphenofemoral junction eliminates the small but ever present danger of pulmonary embolus. Such fatal accidents have been reported by Freeman¹⁵, Stone¹⁶, O'Neal¹⁸, Sears¹⁹, Barrow²⁰, and others. And although such a catastrophe is admittedly rare, it requires but one such accident to thoroughly convince the observer that the ligation of the saphenous vein is small price to pay for the security offered by this procedure.

The technique of ligation of the long saphenous vein should follow closely that used in the treatment of varicose veins, paying particular attention to the ligation and division of each of the small branches found at the sapheno-femoral junction²¹. Retrograde injection has not been done in patients with deep thrombophlebitis for fear of exaggerated reactions.

In a certain number of patients with extensive superficial thrombophlebitis in previous tortuous multiple dilated varices, simple ligation of the long saphenous vein may relieve the acute symptoms, but the mass of thrombosed veins may remain as a hard tender area which subsides but slowly. In this small group of patients, excision of the entire group of veins may be the procedure of choice.

In deep thrombophlebitis or phlegmasia alba dolens, the swelling, fever, pain, and disability are more severe. The exact physiologic basis of the production of the acute symptoms, again, is not entirely clear. It is difficult to reproduce experimentally. Simple ligation of the femoral vein may be followed by edema and cyanosis, but never the pallor of phlegmasia alba dolens, and

this disappears in a day or two. Nor will the injection of thrombosing substances into a segment of the superficial femoral vein, or into the external iliac vein, cause edema with regularity.

To experimentally produce edema of the legs by ligation of venous trunks requires massive ligation of both deep and superficial veins and when this is done, the clinical picture is not that of phlegmasia alba dolens, but rather that usually associated with congestive heart failure. And although it is admitted that the effect on venous return of a long thrombus occluding a portion of a vein may be greater than that of simple ligation of the vein, it is probable that phlegmasia alba dolens is not due to venous obstruction alone.

Damage to the lymphatics by perivascular exudate which has been found to accompany deep thrombophlebitis has been suggested as at least partially responsible for the clinical picture presented by ilio-femoral thrombophlebitis²³, and its late complications in particular. But during the height of the edema in patients with phlegmasia alba dolens, the lymphatics have been shown to be patent and on this basis it seems unlikely that involvement of lymphatics alone will explain the clinical findings entirely. Homans states "A very full swelling of the limb can be present without any perivascular involvement of lymphatics whatever."

In 1931, Leriche⁷ suggested that the symptoms of phlegmasia alba dolens might be due in large part to vaso-spasm. Indeed, the pain of deep thrombophlebitis is not unlike that of arterial ischemia, and may precede the onset of edema by one or two days. The diminution or disappearance of arterial pulsations coincident with the onset of thrombophlebitis has been reported repeatedly. In one of these patients²⁴, surgery was undertaken for the removal of a supposed arterial embolus, and at the time of operation, the lumen of the femoral artery was found reduced by vaso-spasm to less than the size of the lead in an ordinary lead pencil. The periarterial injection of novocaine relieved the spasm. Numerous similar reports have been made (See Ochsner and DeBaKey¹³). In some instances, actual gangrene has been reported.^{25, 26} We have ourselves observed a patient with gangrene of the toes associated with a thrombophlebitis involving the femoral and iliac vein as well as the vena cava. The clot was removed from the iliac vein

and vena cava transperitoneally and at this time careful search was made for organic arterial obstruction and none was found. Lesser degrees of arterial spasm are a constant accompaniment of deep thrombophlebitis as shown by plethysmographic determination of the arterial pulsations in the digits of the affected limb.

Vaso-spasm in these patients was at first believed to be due to contiguous involvement of periarterial sympathetic nerve fibers by exudate from the affected segment of vein. The experimental observations of DeBakey, Burch and Ochsner⁶, however, who observed vaso-spasm following the injection of sclerosing solutions into isolated segments of femoral vein, suggest that this vaso-spasm may be reflex in origin mediated by sympathetic nerve fibers. In the lower extremities, the impulses of this reflex pass through the lumbar sympathetic ganglia and can be interrupted by novocaine block at this point.

Clinically, the immediate cessation of pain and rapid subsidence of fever and swelling in patients with deep thrombophlebitis following novocaine block of the lumbar sympathetic ganglia was reported by Leriche and Jung⁸ in 1931. Since that time, similar observations have been made by other observers.^{8, 9, 10, 11}

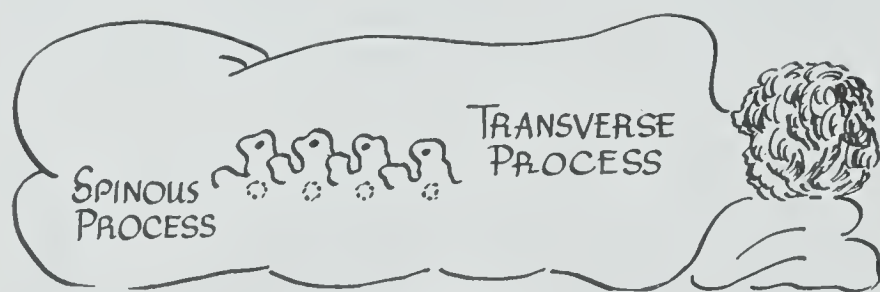


FIGURE I.

The technique of novocaine block of the lumbar sympathetic ganglia is not complicated. A number 22 spinal needle is introduced in the direction of the transverse process of the first, second, third and fourth lumbar vertebrae through a novocaine wheal in the skin two finger-breadths lateral to the spinous processes of these same vertebrae. (Fig. 1.) Upon making contact between the point of the needle and the transverse process, the direction of the needle is changed slightly and the point introduced two finger-breadths deeper. (Fig. II) Five cubic centimeters of two per cent novocaine is introduced into each of the needles. Successful block is evidenced by cessation of sweating and increase in skin temperature of the extremity on the same side.

The relief of pain follows rapidly. This procedure can be satisfactorily carried out with the patient lying either on the side

or flat on the abdomen. General anesthesia is not necessary in most instances, but where the procedure must be repeated more than once, the intravenous administration of evipal or sodium pentathal may make it more readily tolerated by an excitable patient. No serious complications have been encountered, although a transient fall in blood pressure has been observed.

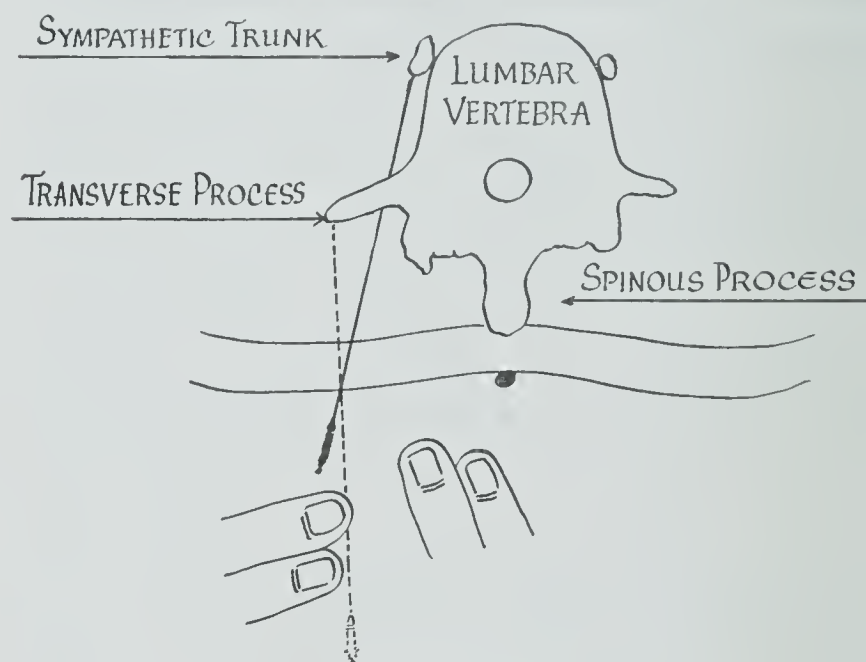


FIGURE II.

We have observed six patients with deep thrombophlebitis treated by novocaine block of the lumbar sympathetic ganglia on the affected side. In every instance there was complete and immediate relief of pain. Elevations in temperature and swelling of the leg have subsided rapidly in five of the six patients; the clinical course of one of these patients is depicted graphically—(Fig. III). The sixth patient died (from generalized carcinomatosis and operative trauma) before one could determine the result of novocaine block of the lumbar sympathetic ganglia upon the edema and fever associated with her thrombophlebitis. Her pain, however, was relieved promptly.

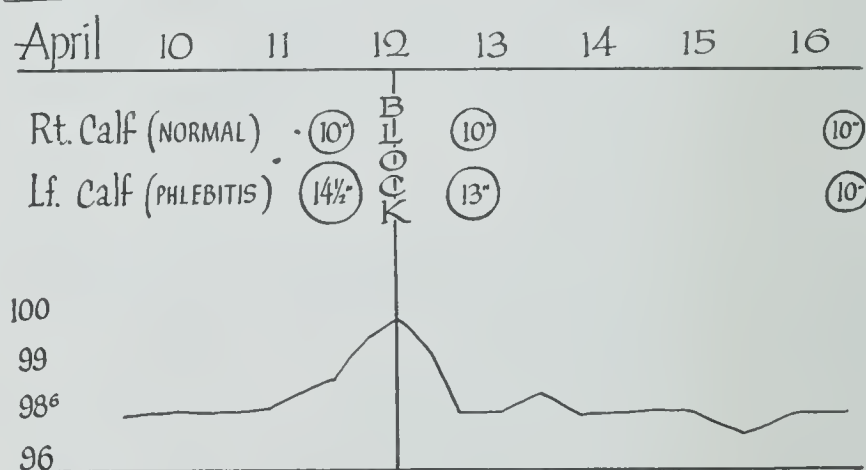


FIGURE III.

In this small group of six patients, relief of signs and symptoms has been so rapid that repetition of the procedure has not been necessary. In the larger group of patients reported by Ochsner and DeBakey, repetition of lumbar sympathetic block was found advisable in approximately one half

of the patients.

The treatment of patients with deep thrombophlebitis, however, does not end with novocaine block of the lumbar sympathetics, if unfortunate sequelae are to be avoided. Although this procedure will relieve the patient's pain and fever, it has less effect upon the accumulation of interstitial fluid, particularly if the patient should become ambulatory. The protein content of this fluid (3-4 per cent)²⁷ has been found per se to provoke fibrosis of subcutaneous tissues and, presumably, of the lymphatics. And, in our experience, although destruction of venous valves may play a part in some patients, it has been this fibrosis of subcutaneous tissues which has been most frequently responsible for the development of post-phlebitic induration, ulceration, and elephantiasis. Control of edema has done much to control complications.

The simplest way to control the formation of edema is by elevation of the affected extremity above the level of the rest of the body. In practice, this has been accomplished by resting the extremity upon four pillows. Elevation is continued until all signs of swelling have disappeared entirely. Even then, activity is resumed but slowly, and the affected leg is supported by an elastic bandage. These bandages should be worn for a considerable period of time even after the disappearance of any tendency to the formation of edema, for in our experience, patients who have worn their bandages faithfully have developed late complications but rarely.

CONCLUSIONS

(1) Ligation of superficial venous trunks (usually the long saphenous vein) proximal to an area of superficial thrombophlebitis has, in our experience, relieved pain immediately, decreased morbidity and eliminated the danger of pulmonary embolus.

(2) In certain patients with extensive thrombosis in previously varicose veins, excision of the mass of thrombosed veins in addition to ligation of the long saphenous vein will shorten the period of disability materially.

(3) Rapid subsidence of pain, fever and swelling of the extremities in patients with deep thrombophlebitis has followed novocaine block of the lumbar sympathetic ganglia.

(4) Elevation of the affected extremity while the patient remains in bed and the use of external elastic compression, either

stocking, bandage, or boot, are suggested to minimize the tendency toward the formation of edema, subcutaneous fibrosis and the late sequelae of post-thrombophlebitic induration and ulceration.

(5) Six patients with deep thrombophlebitis have been so treated with immediate objective and subjective signs of improvement.

(6) No untoward results have been observed following novocaine block of the lumbar sympathetic ganglia.

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SURGERY OF THE BREAST: ANATOMICAL AND PHYSIOLOGICAL CONSIDERATIONS

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When one is confronted with the task of diagnosis and management of any disease, whether medical or surgical, certain fundamentals stressed in the early medical curriculum are essential for a clear conception of the pathological states. These early fundamentals are included in the sciences of anatomy and physiology. Particularly is this true in the diagnosis and surgical treatment of breast lesions where hyperplastic and involutional changes occur at frequent intervals.

ANATOMY AND PHYSIOLOGY

Embryologically, the breast is developed from the ectoderm. It is a glandular organ and histologically consists of epithelium both columnar and cuboidal, fibrous connective tissue, fat and areolar tissue. Anteriorly, the gland is covered by skin and the rather dense fascia of the anterior thoracic wall while posteriorly it lies on the pectoral fascia and occasionally extends into the axilla. The breast consists of many compartments radially arranged and separated by septa of fibrous tissue extending downward from the anterior thoracic fascia. Each compartment might well function alone since it contains all the necessary structures essential for secretion, namely a milk duct opening at the nipple and lined with columnar epithelium and ending in a bulbous expansion or alveolus. The number of ducts and acini in each compartment depends on the physiological activity of the body, increasing at puberty and to a much greater extent during lactation. Perhaps a clear picture of the lymphatic system is of utmost importance in the eradication of cancer by surgical methods since metastases are routed along these channels. For the sake of simplicity the lymphatics may be divided into two separate systems, those that drain the medial quadrants and those that drain the lateral quadrants. Those lymph vessels leading from the acini and ducts in the lateral quadrants communicate with the interlobar lymphatics which in turn permeate the pectoral fascia thence to the axillary nodes. From the upper medial

quadrant channels accompany the perforating blood vessels thence to the mediastinal nodes while occasionally metastases may enter the peritoneal cavity from tumors located in the lower medial quadrants. Then it seems that the location of the tumor may be of vast importance just as extent of infiltration and duration if optimum results are to be obtained from surgery.

AT BIRTH: The female breast is not unlike the male breast in that only a few ducts and acini are present with a varying amount of supportive tissue. Of physiological interest and usually occurring within the first ten days of life a condition sometimes arises known as acute mastitis neonatorum, characterized by slight swelling and a turbid to yellowish discharge from the nipple. This is probably hormonal in origin and is due to an excess of the hormone responsible for lactation circulating in the mother's blood stream.

AT PUBERTY: It is at this stage of development that the endocrines display their role and connection in normal breast changes. Many years ago some observers arrived at the conclusion that the various functions and changes in the breast are regulated through ovarian activity which in turn is controlled by the anterior pituitary gland. As a result of these hormonal influences the organ now presents macroscopic as well as microscopic changes. The gland increases in size, becomes hemispherical and firm and section reveals the formation of numerous side ducts each terminating in an acinus. These acini are filled with functionless cells.

DURING MENSTRUATION AND OVULATION: During this period of life structural changes are frequent and of two types, proliferative and regressive. Proliferation, comparable to the secretory phase of the endometrium occurs on about the fourteenth day of the cycle when the epithelium not only increases but becomes active occasionally even to the formation of secretion. This is the period in the menstrual cycle in which young girls often complain of painful, swollen breasts. Should pregnancy not occur during this phase then the formation of corpus luteum ceases and the breast enters a state of regression. The epithelium now becomes inactive, acini few, lymphocytes may be seen throughout the active periductile tissue and tissue processes are more or less dormant until the arrival of the succeeding corpus luteum

phase. Often during this stage of regression a pathological physiological lesion exists, frequently referred to as fibroadenoma, as a result of over stimulation or sensitivity of the periductile tissue to endocrine stimulation.

DURING PREGNANCY AND LACTATION: Of all the physiological changes in the breast, none are as extensive as those of pregnancy and lactation. Grossly the organ gradually increases in size as pregnancy progresses with pigmentation of the areola and nipple. Again the breast enters the proliferative stage as described under ovulation but since corpus luteum formation continues during pregnancy there is no opportunity for regression, consequently throughout gestation more and more acini are formed until it is practically devoid of connective tissue and fat. On about the second post-partum day proliferation is replaced by the secretory phase of lactation. During lactation there is no relative increase in the number of ducts and acini but hypertrophy of the epithelium is very evident. However, as soon as lactation ceases the organ again passes into a stage of involution characterized by an increase in supportive connective tissue and a marked decrease in the epithelial structures.

AT THE MENOPAUSE: Now that the breast is no longer under endocrine influence permanent physiological changes are produced by involutional processes. Microscopically acini and ducts are being replaced by fibrous tissue and large amounts of fat. After the menopause any picture other than this such as fluid accumulations or certain epithelial or fibrous tissue formation are considered pathological.

DIAGNOSIS AND MANAGEMENT OF BREAST DISEASES: The breast differs little from other organs in its susceptibility to common pathological invasions such as pyogenic infections, fluid accumulations, new growths, tuberculosis and syphilis. Of these affections new growths and cysts exceed in incidence, followed by pyogenic infections while tuberculosis and syphilis may be considered rare.

ACUTE MASTITIS AND ABSCESS: About 95 per cent of all these cases occur within the first two or three weeks of lactation. The common offenders are the staphylococcus and streptococcus making their entrance through a fissure in the nipple then proceed along the lymphatics.

The amount of breast tissue involved and

the course of the process, that is, resolution or abscess formation, depend greatly on the early management and the grade of infection. The cardinal signs of inflammation, pain, fever, chills, swelling, redness and fluctuation, establish the diagnosis. Treatment consists of palliative non-surgical measures or properly placed incisions.

CHRONIC MASTITIS AND CHRONIC CYSTIC MASTITIS: Perhaps no other entity has been discussed as much in the last few years as chronic mastitis especially, as to the etiology and terminology. This statement is based on both the voluminous literature on the subject and the confusion created, for example Deaver and McFarland in their treatise on chronic cystic mastitis give it twenty three different names. A few of these commonly seen in the literature are chronic interstitial mastitis, involution cysts and Schimmelbusch's disease. Those who believe the breast is partially under ovarian influence think chronic mastitis is actually due to an overstepping, as it were, of normal hyperplasia into a pathological state either as a result of excessive hormone or excessive susceptibility of the tissue to endocrine stimulation. Universally however, this theory has not been accepted as many believe it either inflammatory or precancerous. Clinically the patient complains of pain usually of moderate intensity which is often aggravated at the menstrual period. Occasionally there may be bilateral involvement with tenderness and slight swelling manifested by cutaneous venous markings. Physical examination may reveal complete involvement of the breast giving a granular feel with or without axillary glands or simply a solitary tumor. It is with the latter that one is likely to get into difficulty with differentiation from carcinoma. Bloodgood in his exhaustive study of 350 cases of cystic mastitis discovered 210 with large cysts either single or multiple and 140 without large cysts. Difficulty in management of chronic mastitis is likely to exceed that of diagnosis but probably the most reliable guide at present is thorough history and physical examination. Should the patient complain of pain and tenderness throughout the gland and on examination it is found to be almost or completely involved by disease then estrogenic hormone in addition to the usual conservative measures of frequent observation, drugs for analgesia, external heat and support would seem to be the most satisfactory.

However, should the disease present itself as a solitary tumor, small or large, then only one safe and logical procedure remains and that of course is wide excision of the tumor so as to include normal breast tissue. The specimen is immediately given to the pathologist, who should always be present, for microscopic examination. If the tumor is reported benign then the wound is closed but if malignant, radical mastectomy is performed immediately.

TUMORS OF THE BREAST: For clarity all tumors of the breast may be classified into two groups, the benign which are encapsulated and innocent with no desire to infiltrate and the malignant which are not encapsulated and are harmful and grow by infiltration. Of the benign group the most commonly encountered are the fibroadenoma and the duct papilloma. The preponderant tissue of the fibroadenoma being fibrous tissue while that of duct papilloma is always epithelial. Of the malignant group numerous varieties have been described but for convenience clinically the common ones are scirrhous carcinoma, adenocarcinoma and Paget's Disease of the nipple, the latter beginning as an eczema of the nipple which later may become moist and weeping or dry and scaly. Usually late in metastasizing Paget's Disease invariably develops into a typical carcinoma of epidermoid resemblance. A few well known characteristics with careful examination will enable one to differentiate benign and malignant growths in the vast majority of cases. Benign tumors are sharply circumscribed, single or multiple, freely movable and without axillary glands with the exception of chronic mastitis which may produce axillary enlargements but the glands are always tender. Malignant tumors are diffuse, firm, usually single, the nipple may be retracted and on pressure may reveal a bloody discharge and the axillary glands if palpable are not tender. Since about 15 per cent of all breast tumors are malignant one should never rely on the clinical picture, no matter how well defined, because an accurate diagnosis in every case is only possible by exploratory incision and microscopic examination. When we consider approximately 40 per cent of all carcinomas of the female occur in the breast it is of vast importance to emphasize the value of careful physical examination, early operation and lay education. Average statistics in larger clinics reveal that

five year cures are only affected in 65 to 75 per cent of those without axillary metastases and only about 20 to 25 per cent with axillary metastases. Since about 13,000 deaths occur annually in the U. S. from breast cancer despite increasing improvement in surgical and irradiation technique then surely other factors such as ignorance and delay on the part of the patient or physician must surely exist to account for this appalling rate. Today the American Society for the Control of Cancer is rapidly spreading propaganda to the laity on the value of early diagnosis which will probably accomplish more in decreasing the mortality from breast cancer than anything previously attempted. Our defenses against this prevalent disease consist of three separate lines of attack namely, radical surgery, pre-operative or post-operative irradiation and recently coming back into vogue, castration by irradiation in selected cases. Though surgical technique is constantly undergoing improvement the actual principles of radical mastectomy have changed little in the last four decades, when in 1894 Halsted and Meyer described their classic operation. In 1906 Handley advocated removal of the fascia of the rectus abdominus muscles to destroy this pathway of metastases to the peritoneum. Other modifications of the original operations such as those of Warren, Rodman and Stewart have been used rather extensively and with good results but all employ the same underlying technical principles.

The use of pre-operative irradiation has brought about many varied opinions and considerable discussion of late. However, its value over post-operative irradiation is still questionable. Trimble in his communications with large cancer clinics concerning pre-operative and post-operative irradiation received many conflicting replies. The choice of many depended chiefly on clinical findings at the time of admission for treatment. If the tumor was small, mobile and without palpable axillary glands then operation was done immediately followed by deep therapy while the inoperable cases characterized by large growths with fixation and evidence of distant metastases were given pre-operative X-ray followed by operation. Anxiety on the part of the patient awaiting surgery caused some to favor post-operative irradiation. Many reported their series of pre-operative irradiation too small to evaluate the advantage of one over the other while

some in their few cases believed it had no advantage over post-operative therapy. From the replies we can see how divided and conflicting the choice of irradiation. However, Adair has begun a series of two hundred cases all of whom received pre-operative irradiation. In time this study should throw considerable light upon this controversy.

According to Herrell castration as a therapeutic agent in the young with breast cancer was advocated and practiced by Schinzinger as early as 1889. He reported a few cases in the following years which he considered improved but the idea fell into disrepute about 1905. Now going through a period of revival, the use of this therapeutic aid is based on the theory that the breast is under the influence of ovarian hormones, the belief being that the estrogenic principle accounts for the normal physiological breast development. It seems logical to assume that in the presence of pathological conditions such as carcinoma these hormones may likewise stimulate malignant growths. Today some of the larger clinics are using castration by irradiation in selected cases of malignancy as an auxiliary therapeutic agent but sufficient time has not elapsed for any definite evaluation. It is believed that future statistics may prove that castration by irradiation has a place in the supplementary treatment of breast cancer.

SUMMARY

1. Anatomy and physiology are essential for a clear conception of normal and abnormal changes occurring in the breast.

2. All breast tumors are considered treacherous, therefore require wide excision and immediate competent microscopic diagnosis.

3. Radical surgery and irradiation are practised almost universally in selected cases of breast cancer.

4. In the near future castration by irradiation may prove a valuable adjunct in therapy of breast cancer.

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THE CERVIX UTERI AND ITS RELATION TO CHILDBIRTH

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The cervix uteri, from the standpoint of physiological function, abnormalities, and diseases is one of the most important factors in the phenomenon of child birth. Not only does it play an important role in the actual birth of a child but may be the cause of much discomfort and ill health.

Anatomically the cervix extends from the junction with the main body of the uterus to the external os. The canal forms about a third of the length of the nonpregnant uterine cavity. It is fusiform in shape, extending from the internal to the external os. It is lined with a single layer of columnar epithelium which changes to squamous epithelium at the external os. The glands of the cervix secrete a clear tenacious mucus, opening into the cervical canal and having their blind ends between the muscle bundles. The musculature of the cervix differs somewhat from the corpus uteri in its arrangement and function. The pars vaginalis can be seen extending into the upper part of the vagina and in the nonpregnant state should present a pearl-gray, firm exterior. As soon as pregnancy occurs the cervix becomes softer, a darker color, and the blood vessels become somewhat enlarged. As pregnancy progresses the changes in the cervix do not parallel those of the corpus uteri; in fact, until the end of pregnancy there is very little anatomical change occurring. As labor approaches there is a distinct softening and shortening of the cervix, preparatory to its function of dilatation. In the physiological dilatation of the cervix, the characteristic arrangement of musculature conspires to draw the internal os up toward the junction of the corpus and cervix, resulting in a gradual thinning of the body of the cervix. If this process is physiologically accomplished, the point which was the internal os has been retracted well up to the side of the presenting part laterally before the rim of the external os begins to enter into the actual dilatation. In fact, the circular ring representing the location of the internal os has dilated sufficiently to permit the passage of the presenting part before the external os shows very much dilatation. The

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examining finger will feel at this stage, a sharp, paper-thin edge of the cervix. From this point on the dilatation is completed by the stretching of the external os.

From a clinical standpoint, where thinning and retraction of the internal os have been normal and physiological, there is very little permanent damage done to the cervix, by the passage of the child, and when involution is complete about the only difference in the appearance is that the external os appears as a transverse slit rather than the characteristic round opening of the nulliparous cervix. In some cases the cervix even returns to its former appearance. If the cervix is closely inspected, however, immediately after the delivery of the child there will be seen many small points of laceration and usually some slight tearing of the external os. This trauma usually heals normally and leaves no permanent ill effects.

The normal dilatation of the cervix differs very markedly from that of many cases where the presenting part has merely stretched and torn the unthinned organ, and these lacerations invariably extend into the body of the cervix so that the amount of permanent damage to the cervix is usually in adverse proportion to the amount of softening and thinning of first stage of labor.

The physician conducting the delivery can tell in advance by carefully watching the character of dilatation whether or not the body of the cervix will be lacerated by the passage of the presenting part.

It would be difficult to enumerate all the factors which conspire to determine which cervixes will thin and dilate normally and which will fail to thin and sustain severe damage. Several factors may be mentioned in this connection. In the first place, no cervix dilates easily and normally unless nature has prepared the organ for the physiological function of labor which occurs shortly before the onset of full term labor. Most cervixes are more severely damaged in premature labors than those where the baby has remained to full maturity. This characteristic softening preparatory to labor apparently occurs in connection with complete maturity of the baby.

Another element influencing a normal dilatation is the presence of chronic disease of the cervix with the resultant fibrosis. Furthermore, previous lacerations have a definite influence on normal function.

It is probable that the greatest number

of cervixes that fail to dilate normally have some abnormality, either in the musculature of the cervix or in the nerve control to this muscle tissue. It is also to be noted that the multiparous cervix does not thin to the same extent as does the nulliparous. We feel that the teaching that every cervix will dilate is erroneous. There are some cervixes, either because of congenital structural abnormalities, or scar tissue resultant from infection, that will not dilate or tear sufficiently to permit the passing of the fetus. Some cervixes seem to have a ring of tissue closely resembling cartilage, that absolutely prevents adequate dilatation. In fact, a number of cases are on record in which the cervix has been completely amputated undilated from the lower uterine segment, solely by the force of uterine contractions attempting to force the presenting part through the birth canal.

Another common condition seen during pregnancy is the cervix which is acutely infected and is giving not only local manifestations, but is acting as a focus of infection.

At the end of involution, inspection of the cervix will indicate varying degrees of damage from the birth of the child. Most of the cervixes will show some erosion, a great many of them will show at least a moderate degree of laceration, some of them rather severe. In the multiparae, a great many will be found to have varying degrees of chronic infection. This is particularly noticeable in the presence of eversion or ectropin. Inflammatory cysts are very often encountered.

We will now undertake a brief discussion of the management of the cervix under its more common manifestations. In the first place, the question will arise as to just what cervixes should be repaired immediately following delivery. Of course, if the tear has been sufficient to cause excessive bleeding it must be repaired or some other form of hemostasis employed that will adequately control hemorrhage. Some very excellent men advocate immediate repair of all lacerations immediately following delivery. Others teach that at least every cervix should be inspected. We feel that if the cervix has been known to dilate physiologically and if adequate thinning is found and no tear is apparent it is not absolutely necessary to make the inspection. If the cervix has not thinned it should not only be inspected carefully but

lacerations should be repaired at that time. Where thinning has not occurred, the laceration extends into the body of the cervix, leaving permanent disfigurement. If however, thinning has been adequate, small lacerations are of very little permanent importance.

In regard to abnormalities of cervixes, which prevent complete dilatation or prevent laceration adequate for the passage of the baby, there is a rather limited choice of procedures. If the cervix will not dilate sufficiently to admit more than one or two fingers, and remains static for a considerable time, abdominal Cesarean section is clearly indicated in most cases. If however, dilatation progresses to the point where four or five fingers might be introduced, then Dührssen's incision may be employed. This may be either done on one side of the cervix or both. It is well to avoid cutting at nine, twelve, and three, using the face of a clock as points of designation. Of course, this will necessitate immediate repair. If the baby is very small, especially where there is a question of viability, vaginal Cesarean section may be done. We hold that this operation should be reserved for the markedly premature babies.

In regard to the markedly infected cervixes during pregnancy, we do not employ radical treatment, such as cauterization or conization unless the situation demands treatment and other measures are inadequate. A great many cervixes have been treated by superficial cautery during this time and the results are surprisingly good and resultant miscarriages have been very minimal. The application of silver nitrate, the puncturing of cysts, and the employment of mild douches is usually sufficient to take care of the average case.

One of the most important considerations connected with childbirth is the after-care of the patient. Especially does this apply to the care of the cervix.

I wish to take this opportunity to urge upon those accepting maternity cases the extreme importance of a routine post-partum check-up. Ordinarily this should be done from six to eight weeks after delivery. It is rather sad commentary upon the profession that so few women ever return to their physician after childbirth for a complete examination. In fact, in view of conditions so often found, it would seem to us that no doctor has discharged his

obligation to his patient in maternity work, until he has assured himself and can assure the patient that she has returned to perfect health and that he has done everything humanly possible to see that this is accomplished. A digital examination alone is not sufficient to reveal all the pathology of the cervix. The organ must be inspected very carefully and treatments instituted to return it to a perfectly healthy condition. It is not necessary that all irregularities of the cervix be corrected. In fact, the morphology of the organ is of very little importance unless the laceration is extensive enough to predispose it to infection.

Minor or moderate tears of the cervix usually heal by the extension of the squamous epithelium over the denuded area, and thus protects the cervix against the inroads of bacterial invasion. Most cervixes can be restored to a healthy condition by the use of the superficial actual cautery and the drainage of cervical cysts. This may require several treatments at two-weeks' intervals. The cervix may be said to have returned to a normal state when it has regained its original size, all erosions and granulations have been healed, all cysts removed, purulent discharge from the external os has ceased, and the color of the pars vaginalis is normal. If however, there is marked eversion of the cervical lips or ectropion of the cervical canal, secondary repair work should be done. As to the method of repair, we will leave that for consideration of the conditions existing. I would however, insist as my personal opinion that such repair work, when necessary, constitutes an essential part of the obligation of the attending physician who accepts the maternity case. It is our further point and practice that the physician who does the delivery should strongly urge the patient to return for check-up at least every six months during her child-bearing period, for in a very important sense it is his responsibility to take care of anything directly connected with childbirth, no matter how long after the delivery such need should arise.

A great many of the chronic ills of womankind could be easily prevented if such a program were to be adopted, and there is no one who has a better opportunity to put into effect such a beneficial custom as the doctor who delivers the baby; and the care of the cervix after delivery,

with regular inspections after it has returned to normal offers the very best approach to this prophylactic work.

DISCUSSION

Robert F. Monroe: I want to emphasize the importance of the physiology and pathology of the cervix. It is a subject of importance to every man, woman and child. Some of us were unconsciously unaware of the importance to us of the physiology of the cervix long ago. The knowledge of the fundamentals of the physiology is important from the standpoint of lowering the morbidity and mortality, both maternal and fetal. This knowledge is a great deal of value to a man handling obstetrical cases because it aids him in predicting the probable complications of labor that Dr. Starr mentioned. This is a most important subject and was very thoroughly and concisely presented.

Silas H. Starr: In speaking of the preparation of the cervix for dilatation, we have one of the most important points in prognosis, both for delivery and for the time of gestation. Occasionally, I have seen patients who apparently were due at a certain time but whose cervix was unripe for delivery. No matter what criteria—the height of the fundus, size of the baby, etc.—just because we think the time is up, and we have a long, thick cervical canal without dilatation, we make a mistake in attempting to induce labor. There are two complications which occur due to this type of cervix; first, the difficulty of the child to deliver; second, the marked injury to these cervixes, frequently beyond repair and which, in the long run, may give trouble to a patient the rest of her life. In other cases the cervix is apparently thinned out even though the patient is not due for two weeks. Even if she goes into labor, she will make good progress and we shall find things as they should be. I feel that, except for the proportion between head and pelvic, that the condition of the cervix at the beginning of labor is by far the most important point we have to consider in our conduct of labor.

Outside of this particular point, there are others to consider. One thing important is when to decide to do a Cesarean in borderline cases. In a thinned out cervix, the uterus contracts very much more effectively than with a long, thick cervix where we can expect weak pains which are ineffectual. By the time we feel some operative procedure is necessary, the patient's condition is not so good. In the first case, don't hesitate to induce labor.

Then, I think Dr. McConnell has mentioned that of all things in labor the cervix is the most important thing to consider and the first stage is the most important point from the standpoint of delivery. The idea of being able to do various

types of delivery is the ordinary requisite everybody doing obstetrics should be able to accomplish.

W. T. McConnell, (in closing): I did not try to cover all those things in my paper. One more point: when you have a case of toxemia and don't know whether to induce the patient mechanically or do a Cesarean section, make the cervix the deciding factor. If you induce labor when the cervix isn't ready, is not softened, thinned, you will get into a lot of trouble under those circumstances.

TREATMENT OF GONORRHEA IN THE MALE

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The best available statistics on the matter indicate that in this country 1,037,000 new cases of gonorrhea reach medical attention every year. At least the same number do not reach medical care. There is just one other disease with a greater incidence—the common cold. And yet, let us be honest, gonorrhea remains by us the poorest treated, most misunderstood of the ills of human flesh, the stepchild—the red-headed stepchild of medicine.

We are only now beginning to realize that there are principles of treatment. Three years of experience with sulfanilamide and related compounds have served to affirm the necessity for adherence to these principles.

Early in 1937 Time magazine irresponsibly hailed the millennium. A drug had been found which would cure gonorrhea in twenty-four hours at a cost of a few cents. The first report of Dees and Colston followed a few weeks later. What is our considered medical judgment of this drug now? We know it can cure gonorrhea with dramatic swiftness and can be just as completely useless, and that there are all gradations of effect between. It is most interesting to note that the statistical reports on percentages of cures with sulfanilamide are becoming increasingly conservative. 45% to 55% cures seem to be about the average level in recent reports. That is far below the 80% to 90% cures reported in series in 1937. The best I seem to be able to do in my own practice is 15% of cures with sulfanilamide.

Of related compounds, sulfapyridine is the only one yet extensively avail-

able. First impressions, including my own, are that it is rather more effective than sulfanilamide. It will frequently work when sulfanilamide will not, but the converse is also true. Sulfapyridine, incidentally, has been chosen for routine use in the British Army.

Experience has brought a further warning. These drugs will frequently only attenuate the gonococcus resulting in an asymptomatic carrier state. The carrier state is not a new situation in gonorrhea, but it seems likely that it may become increasingly common because of the very simplicity of taking a drug by mouth. All our tests of cure, then must be even more rigidly applied after these drugs have been used.

Assuming that our new drugs will cure even 50% of cases, there still remains one half that must be treated in some other way. It becomes clear that certain fundamental principles of management must apply to all cases irrespective of our newer aids. So I would direct your attention now away from the sulfonamides.

That a drug has been found which when taken by mouth will cure even an occasional case of gonorrhea marks an epoch, of course, in the history of mankind. It may serve best, however, as a vantage point to look back over the inglorious past of man's relationship with the gonococcus. The pathos of past mistakes may serve to emphasize presently conceived principles.

The earliest record of the disease that I have found is in the fifteenth chapter of Leviticus. Moses, with divine authority behind him, commanded that men with urethral discharges were to be considered unclean. That is, that they were to be segregated. Their clothing, bed clothing and effects were to be considered unclean. Those persons who came in contact with them were to be considered unclean. The biblical reference is to a flow of seed which is the literal meaning of our word gonorrhea.

The time of the exodus of the children of Israel has been guessed at 1200 to 1300 B.C. Moses' plan of segregation was at least less meddlesome than many of the procedures which have followed.

Hippocrates, Galen and Celcus seem to have regarded gonorrhea casually. Apparently they considered it more of a nuisance than a disease.

Later Arab and Roman authors were more interested. They made specific thera-

peutic suggestions. Alzahavarius prescribed sea water and also salt water for urethral injections. That was 900 years ago. It is interesting that as the wheels of history turn we find sea water again recommended about 1830 and again in 1930 a writer extols a 1% solution of sodium chloride as an injection in the male.

Shortly after Alzahavarius, attention was called to the fact that when epididymitis developed there was a cessation of discharge. Cause and effect were here confused and the complication was considered the result of the decrease in discharge. Re-establishment of the discharge then became the aim even to reinfection with the pus of another case.

Then followed a flood of amazing concoctions to be used as injections. One was the prescription of John of Ardern, human milk from a mother nursing a male infant, this to be mixed with barley water and have added a little sugar, oil of violets and milk of almonds.

Came the 16th century and syphilis spread suddenly and violently over Europe. It is not surprising that the two diseases should become confused. Gonorrhea and syphilis were regarded as identical. Paracelsus declared them so and that settled it. It became the aim not to let gonorrhea degenerate into syphilis. Then as now a confusing variety of remedies was advised. Then as now publications appeared which contained the secret of a sure and rapid cure.

The two diseases remained confused for 200 years. John Hunter's classical error held up progress for fifty of these years. You know it of course. He inoculated his skin with pus from a case of gonorrhea and developed syphilis, proving to his own and everyone else's satisfaction that the two diseases were identical.

Early in the 19th century light began to dawn. Ricord in Paris in 1831 inoculated 667 men with gonorrhea. None developed syphilis. That was a beginning of understanding. But surely those 667 men are unknown soldiers deserving a tomb of recognition. With the developing knowledge of bacteria all sorts of organisms were described and claimed. Donne in 1837 thought the trichomonas was the cause. Albert Neisser identified the correct organism in 1879.

With the organism found, the battle with antiseptics began. The silver salts lead a

host of chemicals which were invented, praised and discarded and up to the present the situation has remained the same. In the last decade alone we have been advised that a 1% saline solution is a most efficient therapeutic agent, that pure ether injected into the urethra will cure, that formaldehyde vapors will do it and that tincture of iodine is highly effective, but of course a little painful.

It seems that there has been something wrong with our approach. In spite of our fairly good knowledge of the bacteriology of the gonococcus and the pathology of the organs affected, we continue to behave like the primitive experimenters of centuries ago. Each new drug impresses some of us and is a financial success until the next one comes along. The bacteriologist makes a new vaccine; he may add bile salts, he may detoxicate it, he may make it more toxic, he may use live organisms, he may use fifty strains or use the filtrate of a culture and there will be a group of physicians favorably impressed until the next variation appears.

We have been slow to realize that, after all, the gonococcus is a very easy organism to kill; that anything we happen to have at hand will destroy it—even to distilled water. In the face of the all too evident fact of the rebelliousness of the disease, it becomes obvious that our locally used antiseptics do not get to the organism to kill it. When eventual cure takes place it is clinically very evident that it has always been the result of the building up of bodily resistance.

If this is true, then logically it is on this fact that we must focus all our attention. Our efforts must be directed to fostering our patient's immunity responses. To do this best I think we can safely start from this premise; that the patient would eventually get well if he refrained from those things known to prevent cure.

The whole foundation of your treatment lies then in the instructions you give your patient. You must gain and maintain his complete cooperation. And on your part you must be prepared to follow him through to complete cure. Short of that you have obviously accomplished nothing. To the end that you will have his cooperation you will do well, I think, to let him know exactly what he is up against. He will be anxious to know at the outset how long it will take him to get well. I have been in the habit of telling my patients that I will

be quite satisfied to be through with them in six months time. It is best that the patient understand the common course of the disease and very clearly the fact that the resistance he builds up is at best fragile, and must be jealously guarded. Get the fact across to him that you can only help him—that he must cure himself.

I deplore the handing of printed sheets of instructions to patients. They lack emphasis and personal application. Instructions must come from you, deliberately, clearly, forcefully and repeatedly.

First and foremost the patient must avoid sexual excitement. Be explicit that this means not only sexual intercourse. Necking, dancing, suggestive movies, the skirt in the breeze at the street corner must be out. Married couples should stay at least as far apart as separate beds. Almost as important as sexual excitement as a thing to be avoided is alcohol. In this respect beer is just as aggravating as hard liquor. Patients can help avoid nocturnal erections by having the proper amount of bed clothing—not too much or too little, and by avoiding sleeping on the back. Bromides are of assistance in this respect sometimes.

Diet in general does not seem to be of any reasonable importance. I rather doubt that the so called irritating food stuffs influence the disease course to any extent. However, your patient will probably want to be doing something about his diet. Tell him to avoid onions, pickles, mustard, peppers, catsups, chili, not sausage meat and all the other spicy things which irritate the mouth. It may help him keep his mind on getting well.

Your patient should drink copiously of water to the end that he will urinate frequently. Each urination is an irrigation. He should be instructed also to avoid carrying for any length of time a full bladder because experience has shown that a full bladder combined with physical activity is most conducive to complications. Constipation should be avoided. Sufficient mineral oil should be taken to avoid straining at stool.

In regard to exercise habits, too, I believe you can be specific. Horseback riding and bicycle riding are obviously to be avoided. You have probably all seen complications follow long automobile rides. Fifteen miles should be the limit for any uninterrupted automobile excursions. Tell your patient to

avoid the things he has to grunt or strain to do.

Bed rest is unquestionably the way to take larger doses of sulfanilamide. But for reasons of personal privacy and other practical necessities—going to bed will not be feasible for most of your patients.

I am presenting the instructions you give your patient as being the most important part of the treatment. In considering actual therapeutic measures we will do well to keep the attitude that the only thing at stake is the time element; that the patient could get well eventually without our treatments. In treating him we are simply trying to get him well faster. Should our treatments fail of that purpose by breaking down immunity responses or spreading infection to fresh fields, then they are very much worse than useless.

It has been fairly general experience including my own that the biologic products, sera, vaccines, filtrates are not of reliable assistance. I have seen them break down the partial immunity which my patients had struggled to build up. So far I have not been able to find a dose between a uselessly small amount and the danger line of overdose with any consistent accuracy and so have not felt justified in continuing to use the biological preparations.

Experience has shown that local treatments properly given are of very real value. The effect of chemicals used locally is not so much antiseptics as mild stimulation of mucous membranes and so increasing their own curative efforts. The chemicals which do this best are the silver salts, potassium permanganate and neutral acriflavine solutions. Various astringent solutions such as lead acetate, zinc sulphate and others I have tried and found not very helpful.

The first foothold of the disease is in the anterior urethra. Let us consider first the treatment of the infection there. Statistics show that posterior extension of the infection can largely be prevented if local treatments can be started in the first six days of the disease. By preventing posterior extension you may expect the disease to be eradicated in six to eight weeks.

I plead that local treatments be gentle both in the manner of administering and in the strengths of solutions, and that they be given, if at all possible, by yourself and not the patient.

If circumstances are such that the patient must treat himself, then he should be precisely instructed by demonstration. A one-

eighth ounce blunt nosed Asepto syringe is probably safer than a one-fourth ounce size. He should be told that too little treatment is many times better than too much; also that he should never treat himself if he has to hurry. To these ends he is advised to treat himself just twice daily. The injection should be made after urination and the solution held in the anterior urethra for five minutes by the clock. Show him how. It is not fair to the patient to give him a bottle of argyrol and a syringe and simply tell him to inject so many times a day.

If treatments are to be by you, once daily will usually be sufficient. If you use gravity irrigations, the irrigating reservoirs should be no higher than three to four feet above the level of the urethra. As the discharge decreases, the interval between treatments may be lengthened and when discharge has been absent two weeks and the urine clear you may then try to determine whether cure has taken place. If discharge continues beyond ten days during treatment, the chances are excellent that invasion of the posterior urethra will occur.

When extension of the disease to the posterior urethra occurs, no symptoms may indicate it. Cloudiness in the second glass of a two glass urine test may be so transient that it may be overlooked. On the other hand it may be an event which the patient will long remember, urgent desire to urinate, painful frequency, terminal hematuria, even total hematuria with passage of large blood clots. Lesser degrees of these symptoms are however, common. It is the consensus of opinion that during this acute stage of posterior infection, direct treatments to the posterior urethra are meddlesome. This is the time for oral sedatives, hot sitz-baths and limitation of physical activity to the minimum.

When the patient is again urinating with entire comfort irrigations through the urethra into the bladder are to be carried out. Gentleness is as important as before. The irrigating reservoir is no higher than for anterior irrigations. The patient lets the solution run into his bladder—it is not forced in. His sphincter muscles will open if he will attempt to urinate against the solution. If they remain tight shut wait for them to relax at the next visit or the next. The point is, never to force them.

It is not necessary to fully distend the bladder. Let the patient pass the solution

out and repeat the procedure several times. Such irrigations are carried out at two day intervals until the voided urine contains only a few shreds. Prostatic massage is then combined with irrigations.

Here again gentleness must be your creed. The first massage is little more than a finger wave. The patient then empties his bladder of the contained solution to wash out of the urethra any expressed prostatic secretion. If this or any subsequent prostatic massage causes an urethral discharge which persists until the time of the next treatment the prostate must be left alone and irrigations continued until the urine is again clear or with a minimum of shreds. Otherwise the irrigations may be left off after the first two weeks of massage.

As the massages are continued the degree of pressure on the gland should be increased to moderate firmness. While disagreeable and uncomfortable, they should never cause real pain. Prostatic massages should be continued at intervals of two or three times weekly until the secretion obtained is free not only of gonococci but of pus. If pus remains you are not justified in assuming absence of gonorrhea organisms merely because they can not be found on stain or culture and you are not justified in proceeding with any test of cure until after two or three months of regular, uninterrupted massage and removal of other foci.

It is an embarrassing evidence of the limitations of our knowledge that our criteria of cure of gonorrhea rests on the clumsy plan of trying to stir the disease into activity after we think it is cured. Yet this remains the most reliable method we know. Such tests should be started with the same enthusiasm that a burglar approaches a burglar alarm, trying first the things least likely to cause trouble.

In infections which have apparently remained anterior, the prostate is massaged and its secretion studied to make sure that a possible asymptomatic posterior extension has not been overlooked. The posterior urethra is never involved without the prostate. A sound as large as the urethral meatus will permit is then passed only as far as the external sphincter, and the urethra massaged over it, particularly the floor and roof of the canal for it is here that the glands and crypts are located. Subsequent urine sediments and any resulting discharges are studied for the presence of the gonococcus. Such studies must be doubly careful when the sulfonamides have been used. This procedure should be repeated in about five days. Similar studies

are made after the use of alcohol. Finally sexual excitement is permitted with adequate protection of the partner if intercourse is attempted. If the gonococcus can still not be found your patient may be dismissed on probation. Inform him that he is probably well. If he is looking forward to resumption of sexual activity he must use a good condom for the next three months. If the disease has been an antero-posterior one, the same criteria of cure are used except that the sound is passed all the way to the bladder instead of just to the external sphincter.

I have not regularly made use of vaccines as criteria of cure and have no enthusiasm to recommend them to you. Recurrences which result from the break down in immunity which vaccines cause are vastly more difficult to overcome than are recurrences caused by any of the other tests of cure.

Unfortunately, complement fixation tests for gonorrhea have proven of little practical value even when carried out by laboratory workers especially experienced with them. They have generally been abandoned.

Recent notable developments in technique have made culture of the gonococcus a very reliable procedure. Cultures are now definitely more reliable than direct stains. It is greatly to be wished that culture facilities can become more generally available.

In presenting the treatment as I have I realize that much has been of necessity overlooked. I have wished chiefly to emphasize principles.

I would summarize my remarks thus:

1. There are basic principles for the treatment of gonorrhea.

2. They are as important as ever with the use of the sulfonamides.

3. The instructions you give your patient are the most important part of treatment.

4. Gentleness in your therapeutic procedures is an absolute necessity.

5. You must be prepared to see each case through to complete cure.

I know from distressing experience how puzzling a paper on this subject is to the listener. Treatment formally presented runs so smoothly and cases run so far from smoothly that there seems no valuable connection between the two. Yet any case, no matter how apparently singular, actually somewhere fits into the principles outlined and will respond to the measures suggested.

ANEMIA AS A PROBLEM FOR THE
SURGEON

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The surgeon's interest in anemia extends in six principal directions. These are:

(1) Anemia due to Hemorrhage, Acute or Chronic; (2) Anemia due to Infection; (3) Anemia due to Neoplastic Disease; (4) Anemia due to Banti's Disease; (5) Anemia due to Idiopathic Thrombocytopenia; (6) Anemia of Hemolytic Origin, especially Acholuric Jaundice.

It is impossible to discuss all of these in a fifteen minute paper. This discussion is therefore limited to a consideration of the anemias accompanying essential thrombocytopenia and acholuric jaundice, because they have two things in common, splenectomy as a curative procedure and complete hematologic examination as an essential to correct diagnosis.

IDIOPATHIC THROMBOCYTOPENIA

This is an hemorrhagic diathesis accompanied by a diminished platelet count, a prolonged bleeding time, a lack of clot retraction, a normal coagulation time. An understanding of its clinical manifestations is predicated upon knowledge of the normal and pathologic physiology of the platelets.

Normally the platelets vary between 250,000 and 500,000 per cu. mm. The actual number varies with the physiologic status of the individual and with the method of determination. But this is not of great practical importance because the critical level, at which bleeding occurs, is less than 60,000 per cu. mm. It is well to bear in mind also, that a low platelet count is not necessarily associated with purpura, or a high one with thrombosis. It is possible to reduce the platelets experimentally without producing capillary hemorrhage. For this reason, some writers believe that purpura is due to endothelial damage rather than to platelet deficiency per se. It seems easier, however, to explain the beneficial effects of splenectomy in this type of purpura on the basis of an altered status of the platelets than of the endothelium.

The factors responsible for a diminished platelet count, are:

1. Diminished Production: This may be due to exogenous factors, infection, chem-

ical intoxication, x-ray and radium emanations, or to endogenous factors, aplastic and pernicious anemia, neoplastic infiltration of the bone marrow, intrinsic defects of the megakaryocytes.

2. Excessive Destruction in the spleen.

3. Increased Utilization: This occurs after injury and in bacterial endocarditis where the circulating platelets are withdrawn to aid in repair processes: in septicemia and anaphylaxis where the platelets are agglutinated.

The above factors may operate singly or in combination.

PATHOGENESIS: As indicated by its name, the etiology of idiopathic thrombocytopenia is not known. Reduction in the number of circulating platelets is a basic factor. The mechanism by which this comes about is not known. Except in the acute cases, which are rare, splenectomy brings about improvement. For this reason, it has been suggested that the spleen operates by producing a platelet inhibiting or a platelet destroying substance. However, splenectomy causes only a temporary increase in the number of platelets and morphologically the spleen shows no pathognomonic changes. The bone marrow megakaryocytes are not decreased in this type of purpura. Whitby and Britton advanced the ingenious theory that the decrease in platelets may be due to (1) a maturation defect or (2) an aplasia of the bone marrow giant cells. The former could be due to a splenic mechanism, the latter to extrasplenic influences. This hypothesis may explain the success of splenectomy in most cases, its failure in a few. It does not account satisfactorily for the fact that splenectomy is usually followed by only a temporary increase in platelets, since removal of the platelet maturation inhibiting influence should be followed by a permanent restitution of the normal platelet count. For this reason, Vaughan and others suggested that the purpura is due to increased capillary permeability brought about by endothelial damage.

HEMATOLOGIC CHANGES: Morphologically, the blood changes are essentially those usually seen in hemorrhage plus a concomitant and marked decrease in the number of platelets. The degree of anemia and hypochromia depends upon the amount and frequency of hemorrhage. A single severe hemorrhage would be accompanied by a normochromic and normocytic anemia. Us-

usually the disease occurs in a chronic and recurrent form. The most characteristic hematologic findings are:

1. A microcytic, hypochromic or a normocytic, normochromic anemia, depending upon the type and frequency of the accompanying hemorrhage.
2. A decreased platelet count.
3. A positive capillary test. (Purpuric hemorrhages appear when the inflated cuff of a sphygmomanometer is applied around the arm for five minutes at a pressure halfway between that of the systolic and diastolic blood pressure).
4. A prolonged bleeding time.
5. A friable, non-contractile clot.
6. A normal coagulation time.

Idiopathic thrombocytopenia may be differentiated from the other purpuric and hemorrhagic conditions on the basis of the data summarized in Table I.

TREATMENT: It is not necessary to discuss the treatment in detail. In selected cases, splenectomy is the treatment of choice. Investigators are generally agreed that the mortality of splenectomy in the chronic form of essential thrombocytopenia is from 8 to 10 per cent and that splenectomy produces complete symptomatic relief in about 85 per cent of the survivors. In the acute form, the operative mortality is between 70 and 87 per cent. Therefore it is important to differentiate between the acute and the chronic forms of disease and this can be done if the history is taken carefully and accurately. Splenectomy should not be advised in acute thrombocytopenia and in chronic purpura it should be undertaken only if palliative measures fail and there is considerable disability.

ACHOLURIC JAUNDICE

This is an hereditary hemolytic anemia characterized by spherocytosis, reticulocytosis, increased fragility of the erythrocytes, icterus and splenomegaly. The disease is comparatively rare and is most frequently seen during childhood. Occasionally it remains latent until adult life.

PATHOGENESIS: The essential cause of the disease is the spherocytosis which results in an increased fragility of the red blood cells. Because of their abnormal shape, the red cells are more susceptible to the wear and tear of circulatory stress. Splenectomy decreases slightly the fragility of erythrocytes and is effective chiefly because the spleen is normally the chief site of erythrolysis. The hemolytic tendency is inher-

ited as a Mendelian dominant trait. In its hereditary nature and its morphologically altered erythrocytes, acholuric jaundice is allied to sickle cell anemia and to ovalocytosis. Haden has shown that there is a direct relationship between erythrocyte fragility and the ratio, cell thickness:cell diameter. For instance in man the average cell thickness:cell diameter ratio is 1:4.2 and the erythrocytes hemolyze in 0.45 to 0.35 per cent saline. Corresponding values for the rabbit are 1:3.6 and 0.54 to 0.52, for the cat, 1:3.2 and 0.66 to 0.6, for the goat 1:2.1 and 0.74 to 0.72. In other words, the more spherical the erythrocyte, the greater is fragility in saline solution. Why the bone marrow should produce fragile, globular cells in this condition is not clear.

HEMATOLOGIC FINDINGS: In the congenital form the red blood cells are microcytic and appear as small, deeply stained, compact cells. Usually they are reduced only moderately and counts of 3,500,000 or more are common. They show a greater than normal mean corpuscular average thickness and an increased diameter:thickness ratio. Because of this increase in thickness their volume is within normal limits and the mean corpuscular volume is increased. The mean corpuscular hemoglobin concentration is normal and the color index is greater than 1. There is a constantly high reticulocyte count and normoblasts are common, especially following a crisis. Increased fragility to saline solution is constantly present but may not be recognized unless a quantitative test is carried out. This is done according to Whitby & Britton's modification of Simmel's method, as follows: Accurate solutions of sodium chloride, ranging from 0.3 to 0.7 per cent, with intervals of 0.1 are made up. Erythrocyte counts are made with Hayem's solution (dilution 1 in 200), and with each of the five sodium chloride solutions. The pipettes are allowed to stand for 15 minutes at room temperature and the red cell counts made in the ordinary manner. The number of cells which have been hemolyzed by contact with the saline solutions can be determined and the quantitative degree of hemolysis plotted in graphic manner. The leucocytes are not affected except during a crisis when there is a "shift to the left." The bleeding and coagulation time are usually within normal limits.

PATHOLOGY: The spleen is usually greatly enlarged and its sinusues are so engorged

with blood as to obscure the lymphoid follicles. The bone marrow is crowded with cells and shows a normoblastic reaction. Gallstones of mixed calcium and pigment type, are present in about two-thirds of the cases. Ulceration of the legs is common and may be severe.

In the acquired form the blood changes are similar to those of the congenital form but crises are more common, reticulocytosis more marked, the fragility of the erythrocytes not quite so markedly increased. It has been aptly stated that in the congenital form the patient is "more icteric than sick" in the acquired, "more sick than icteric."

TREATMENT: Transfusion is dangerous because of the risk of severe transfusion reaction, no matter how carefully the blood is matched. Splenectomy is the treatment of choice. The operative mortality is about 5 per cent, even in a carefully selected series. Therefore splenectomy should not be attempted unless the patient gives a history of repeated crisis and should be done during a remission.

SUMMARY

The surgeon is intimately concerned with several types of anemia.

Two of these, both occurring as "primary" blood dyscrasias, are idiopathic thrombocytopenia and acholuric jaundice.

The two diseases are reviewed briefly with special reference to their hematologic manifestations.

Physical Development in Mongolism.—Benda finds, after the clinical examination of 120 persons with mongolism, that the condition is present at birth. Therefore the influence which leads to the condition of mongolism is predominant during the prenatal period. After birth there are residuals of such an influence, and one finds remarkable retardation in development. Many mongoloid children die in the first year of life. If the child survives the first few years, he adjusts himself fairly well to the biologic conditions of life. Growth is slow but at a low normal level during the first nine years. Increase in height ceases early, and after the fifteenth year few mongoloid person show further growth. Mongoloid children are usually underweight during the first two years of life. Many become overweight after the fifth year and dystrophia adiposogenitalis is frequent after puberty. The mongoloid skull is not microcephalic at birth but shows lack of growth. All mongoloid children appear microcephalic after six months. Persons with mongolism usually show early ossification and fusion of the epiphysial lines, even when the condition is complicated by rickets.

GONORRHEAL URETHRITIS IN THE MALE

W. P. McKEE, M. D.

Eminence

HISTORY: Gonorrhea is as old as recorded history. References to the disease are found in the oldest Egyptian papers, and in the ancient writings of India and China. The word itself means "flow of semen" and this idea was tolerated for many centuries. Contagiousness of the disease was first appreciated in the Middle Ages, when it was pointed out that contact with infected persons was necessary for transmission. Gonorrhea was not differentiated from other venereal diseases until early in the 19th century. In 1879 Albert Neisser discovered and described the causative organism. Since that time the relationship of gonorrhea to its complications has been better understood, and in the past few years remarkable advances have been made in treatment.

This paper will deal with only one phase of gonorrheal infection, namely, gonorrheal urethritis in the male. In general practice we see more of this type than any other, among new cases. males predominate over females 3 to 1. This is the figure given by most text books, but probably the males predominate even more because, due to the relatively mild early symptoms, many of the females are not seen until late in the disease when the infection has spread to the pelvis. Statistics are not very reliable because physicians are unwilling to report cases by name, and many cases are never seen by a doctor, but here are some figures that may be interesting: In Switzerland approximately 20 persons per 10,000 contract venereal disease, 75 per cent of which are gonorrheal. The rate among divorcees is 130 per 10,000; among the single 70 per 10,000; among the married, 38 per 10,000; and in widowers, 17 per 10,000.

ETIOLOGY: The usual source of gonorrhea is exposure to an infected individual through sexual intercourse. This is so nearly 100 per cent true in the adult male that no further discussion is necessary.

BACTERIOLOGY: The organisms occur in pairs, the individual members being kidney shaped with their concave surfaces toward each other. They occur both intra

and extra-cellularly. Their chief identifying characteristics are the above and the fact that they do not take the Gram stain.

SYMPTOMS: On an average of from three to five days following exposure the patient notices a tickling, itching, and slight stinging at the meatus. These symptoms increase in intensity until there is definite pain and scalding on urination. At this time the discharge, which at first was a thin secretion, becomes more abundant, thick, yellow or greenish yellow pus sometimes blood-stained. There is from slight discomfort to intense pain produced by erection.

DIAGNOSIS: The diagnosis can be made with a great deal of certainty by the aforementioned symptoms, but a patient should never be started on treatment until a smear from the urethra has been stained by the Gram method and examined microscopically.

DRUG THERAPY: As this phase of treatment is comparatively new, at least, successful drug therapy is comparatively new, there is still a great deal of variation in the method of administration. The following statements are based on the more accepted methods appearing in the literature and on our own experiences.

Sulfanilamide began to be used experimentally in the treatment of gonorrhea in 1937. It was first used by Dees and Colston of Johns Hopkins Hospital. Following their report the literature was flooded with reports of its successful usage.

After establishing the diagnosis, treatment should be instituted at once. The initial dose is 40 to 60 grains followed by 20 grains five times daily for the first four days. The patient should be seen at the end of this time, a stained smear examined, two glass urine test done and a blood examination done to detect any signs of developing agranulocytosis. At the end of the first four days, in the cases which are going to respond to sulfamilamide, most of the discharge and discomfort have disappeared, only a morning drop remaining to remind the patient of his infection. It is at this stage that the treatment most frequently goes astray, either the patient feels that he is cured and does not return or the Doctor discontinues the treatment too soon. When seen at the end of four days, if the response has been satisfactory, the dosage is cut to 15 grains five times daily for one week. The patient is seen again and if improvement has continued the dosage is cut to 10 grains five times

daily and continued at this dosage until cured. All of the above are given with an equal amount of sodium bicarbonate. When the patient is free from subjective symptoms, and there is no discharge the prostate is massaged and a stained smear of the prostatic secretion examined. If no gonococci are found, one of the tests of cure is employed and the examination repeated. Even if no gonococci are found at this time, the patient should be warned to use a condom for several weeks and return immediately at the slightest sign of recurrence.

The foregoing is the routine in the case which responds nicely to sulfanilamide. Unfortunately all of the cases do not respond in this manner. When there is little or no response to the use of sulfanilamide, as can be determined after the first four days of treatment, some of the other sulfonamide derivatives should be used. Sulfapyridine in dosage of 60 grains daily quite frequently gives a good response where sulfanilamide has been unsuccessful. We have found that Neoprontosil, in the same dosage as sulfanilamide, often produces a response when the former drug has failed.

LOCAL TREATMENT: In the cases which do not respond to sulfanilamide or its related drugs at all or when the response is not satisfactory, local treatment must be resorted to.

The drugs most commonly used for local treatment are:

- (1) Mild silver protein.....5%
- (2) Strong silver protein.....0.25%
- (3) Potassium permanganate.....1:10,000
- (4) Silver nitrate1:10,000

A bulb syringe with a perfectly blunt tip, one drachm capacity, should be used. One drachm is instilled into the anterior urethra and retained for five minutes, twice daily until the discharge begins to decrease, then once daily until there is no discharge, then every other day. Later the interval can be lengthened. The first treatment should be carried out in the office, and the patient should be impressed with the need for utmost gentleness. If there is discomfort during retention of the drug a weaker solution should be used. The treatment should be given following urination, and the patient should not void for some time afterwards. When one treatment a day is being given it is preferable to give it at night before retiring as this al-

lows the chemical to be in contact with the tissues overnight.

The patient should be warned of the symptoms of posterior urethritis and instructed to stop all local treatment and come in immediately, should they develop.

No instruments should be passed while gonococci are present. Rectal examination should not be done on a patient with an active discharge unless the prostate is already involved.

GENERAL TREATMENT: Sedatives should be used to control erections, and for the relief of discomfort. Bromides, opium, morphine, hyocyamus, codiene are all effective. Oil of santal for painful urination.

Of course the patient is warned to avoid sexual excitement, use of alcohol, articles of diet which are irritating, and excessive physical exercise.

Daily cleansing of the parts with soap and water is essential.

Cooperation of the patient is just as essential to a successful result as the proper administration of drugs. If one can obtain full cooperation of the patient, half the battle is won.

THE PRESENT STATUS OF THE THYMUS AND THE PINEAL AS ENDOCRINE ORGANS

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Descartes is usually credited with the origin of the belief that the pineal body, or epiphysis cerebri, is the seat of the soul. Bailey, in his recent monograph on intracranial tumors comments tersely on the degradation of this once lofty organ in stating that its only function is its service to the roentgenologist in lateralizing, by means of its shadow, intracranial tumors. Without commenting on the foresightedness of nature in preparing an organ whose only function could not have been utilized until the twentieth century, physiologists would, I believe, be willing to leave the pineal for the psychologists and the roentgenologists to fight over, were it not for clinical data suggesting for this organ a function on the one hand somewhat more mundane, on the other much more exalted. Descartes, Freud, and modern biochemistry seem strangely intermingled in a recent summary of the phy-

siologic function of the pineal body by Adolph Hanson as "the hidden back-seat driver of human destinies, the nigger in the woodpile of human affairs and conduct, that in some way, for good or for evil, may influence the acts of the ego in the flesh more than any other one gland."

Frankl-Hochwart first called attention to the association of sexual precocity in the human male with pineal tumors. These tumors are relatively rare. In 1911 Bailey and Jelliffe could find only 59 cases in the literature, while in 1927 Haldeman found 113. In Haldeman's series there were 29 prepuberal boys, of whom 16 showed some degree of sexual precocity. The association of sexual precocity with pineal tumor is therefore not constant. Bailey and Jelliffe noted this in their study, and called attention to the fact that in some cases there was actually sex infantilism. Nor is there any constant relationship between the type of histological change in the pineal and the effect on sexual development. In the sixteen cases of precocious puberty in Haldeman's series, nine were associated with teratoma of the pineal, three with adenoma, and one each with sarcoma, angiosarcoma, neuroepithelioglioma, and an unclassified tumor.

The syndrome of Pellizzi, which consists of precocious puberty in the male, or macrogenitosomia praecox, with acceleration of skeletal and muscular development, has been reported in association with basophil adenomas of the hypophysis, adenomas of the adrenal cortex, and gonadal tumors, as well as with tumors involving the pineal. Every serious worker in the clinical field, including Cushing, Bailey and Jelliffe and Horrax has recognized the fact that this syndrome is by no means pathognomonic of pineal tumor. In all the reported cases associated with pineal tumors or tumors in the roof of the third ventricle, there have been symptoms of generalized increase in intracranial pressure, with localized pressure on the subjacent hypothalamus and hypophysis. Since both the hypothalamus and the hypophysis, either independently or in conjunction, are known to control the development and activity of the gonads and the genital system, it is possible that the pineal enlargement per se constitutes a mechanical basis for the syndrome by exerting pressure on these structures. This possibility becomes the more attractive in

view of the diversity of the tumors, some hyperplastic, some destructive, which are associated with the syndrome. Indeed, Bailey and Jelliffe went so far as to suppose that Frohlich's syndrome, with sex infantilism, and Pellizzi's syndrome, with sexual precocity, could represent merely different degrees of disturbance of the hypothalamus and hypophysis. Ford and Guild in 1937 reported three cases of precocious puberty following encephalitis, and call attention to the fact that either Frohlich's or Pellizzi's syndrome may follow purely inflammatory conditions not involving the pineal.

The position of the pineal body as a member of the endocrine system is not made more secure by a study of its origin or its structure. It persists as a third or parietal eye in the Australian lizard *Hatteria punctata*. It is derived from ectoderm which does not usually give rise to glands of internal secretion. In most species the clumps of granular cells which it contains begin to disappear early in life, leaving an atrophic mass made up largely of neuroglia in which are deposited salts of calcium and magnesium. In man, such involution begins at the age of about seven years.

The fact that in most species involution of the pineal begins before the age of puberty has given rise to the belief that a decline in its function is necessary for adolescence. Attempts, however, to check this hypothesis by removing the pineal in very young animals, have given conflicting results. Before the need to avoid damage to the hypothalamus and pituitary was recognized, about half the workers in this field reported some acceleration of puberty in various species, including the rat, guinea pig, rabbit, dog, chicken, and frog, following early pinealectomy. The mortality in the operation is high, so that experimental series were usually small. Blank operations to expose the pineal without removing it were not done. The more recent work with pinealectomy has given consistently negative results in all these species.

The administration of pineal substance to experimental animals has yielded equally unconvincing evidence of endocrine function. Of all the experimental methods available in endocrinology, perhaps this is the most liable to erroneous interpretation. It is now known that nearly all tissues yield pharmacologically active materials if suitably extracted. Unless, how-

ever, these extracts correct deficiency syndromes following ablation of the gland, or produce in normal animals syndromes comparable to that of clinical hyperfunction of the gland, they are of no endocrinological significance. In the case of the pineal body, for which no deficiency syndrome is available to be corrected, and no hypersecretory syndrome is demonstrable to be mimicked, one approaches this last resort of the endocrinologist with prejudicial skepticism.

Pineal implants, which are free from the objection that pharmacologic action is the result of extraction artefacts, have given uniformly negative results insofar as somatic or genital development or sexual activity is concerned. The young of certain tropical fish are reported, however, to grow more slowly if fed pineal gland. Alkaline extracts of pineal are reported to inhibit the action of the pituitary growth hormone in rats, to inhibit the action of the gonadotropic factor in the serum of pregnant mares, and to produce estrus changes in the vagina of the mouse.

In 1936, Hanson obtained a picric acid derivative of an aqueous extract of pineal, which, in the hands of Rowntree and his colleagues has been found to have remarkable properties. Daily injections of this material had no effect on the growth or development of young rats, but if the injections were continued in the offspring of treated rats, and in their offspring in turn, effects began to be observed in the third and fourth generations, reaching a peak in the fifth generation. The effects may be summarized as a retardation of somatic growth, with acceleration of somatic and genital maturity. As a demonstration that pharmacologic effects may accrue in successively treated generations, the work is of major importance, and opens an entirely new field for investigation. But if this extract be taken to represent the endocrine function of the pineal body, all the clinical data will have to be discarded. A part of Pellizzi's syndrome with pineal tumors is accelerated somatic growth, rather than dwarfing. And an impasse is just as quickly reached if one assumes that pineal tumors produce pineal hypofunction, since destruction of the pineal should lead to sex infantilism. D'Amour and D'Amour in 1937 reported that pinealectomy in successive generations of rats caused a slight increase in body weight after the third generation. Their groups of animals were small, and no operated controls were re-

ported. They did not find, however, any effect on somatic maturity, or genital development, using criteria similar to those used by Rowntree.

Satisfactory experimental proof for endocrine function in the pineal is thus not yet available. Such proof will consist of the production of definite abnormalities by ablation of the pineal without damage to the diencephalon and hypophysis; with return to the normal on treatment with pineal substance in the form of implants or extracts. None of the recent work with pineal extracts fits in with clinical studies of pineal disease, nor with the experimental data obtained by ablation. It therefore has not yet thrown additional light on the physiology of this organ. The pineal may yet remain the seat of the soul and a landmark for the roentgenologists. The study of the effects of a picric acid derivative of an extract of the soul over several generations becomes either a metaphysical or a pharmacological problem. It is outside the province of even the most ubiquitous physiologist.

It is altogether fitting that the thymus should be treated in a single discussion along with the pineal. The word thymus is a direct transliteration of the Greek word for the mind. I must confess that I approach this part of the discussion with appropriate respect both for the unknown and for the metaphysical.

The clinical claims for endocrine function in the thymus have been based on the association of persistent or enlarged thymus glands with a variety of conditions, such as Addison's disease, myasthenia gravis, and the poorly defined syndrome known as status thymo-lymphaticus. Such associations, however interesting they may be, fall far short of proving that the thymus plays a causal role in any of them. It is well established experimentally that the thymus, along with other portions of the lymphatic system, responds quickly to infections, changes in the state of nutrition, thyroidectomy, gonadectomy, adrenalectomy, hypophysectomy, injection of many drugs, and injection of foreign proteins. Anderson has even shown that severe exercise reduces the size of the thymus. It is obviously ill-advised to draw any conclusions from the changes in size of so labile an organ.

As in the case of the pineal, the prepubertal involution of the thymus has suggested that its involution may be neces-

sary for sexual and somatic maturation. This has seemed to be supported by evidences of delayed maturity in status thymo-lymphaticus. Attempts, however, to accelerate gonadal development or somatic maturity in mammals by early thymectomy have been consistently negative in the hands of careful workers since Friedleben first removed the thymus from dogs in 1858.

In 1912, Gudernatsch found that tadpoles fed exclusively or largely on calves' thymus gained in weight and metamorphosed late. In repeating this work in 1926, Romeis found that if an adequate diet was supplied, the addition of thymus did not affect tadpoles. Gudernatsch's much quoted evidence for endocrine function in the thymus thus seems to indicate simply that the thymus is an incomplete food. Romeis also found that both somatic growth and genital development in rats fed exclusively on thymus were delayed. The strongest remaining experimental evidence for endocrine function is the observation of Riddle that five pigeons whose eggs were defective, laid normal eggs after they had been fed dessicated thymus. On autopsy he found degenerative changes in the thymus, but was unable to produce similar defects in the eggs of other pigeons by controlled thymectomy.

The thymus had, on the basis of such work, come to be regarded pretty generally as merely a part of the lymphatic and lymphopoietic system, when interest in a possible endocrine function was revived by the findings of Rowntree and Hanson in 1935. They reported that an extract of calves' thymus made by Hanson, although without effect in a single generation of rats, had accruing effects in successive generations, consisting of sexual precocity and accelerated somatic growth. Since that time Rowntree and his colleagues have reported that implants of thymus have similar though less striking effects; and that thymectomy at the age of about 20 days in successive generations causes some retardation in the growth curve, which is entirely made up at the age of 60 to 70 days. It seems significant that the retardation in growth, which never amounts to more than 15 per cent, reaches its peak about 10 days after the operation. The operation requires extensive dissection, and one wonders if this alone is not enough to cause retardation in the growth of young rats. Sexual development, eruption of

teeth, growth of hair, etc., are not significantly different from the unoperated controls. They state that injection of thymus extract into the operated animals prevents the retardation in growth, but give no data. They also state that the lag in the growth curve is much greater in the fifth than in the first generation, but inspection of their data shows no very striking difference.

It has rather recently been reported that roentgen irradiation of the thymus in two-day old rats causes retardation of growth and apparently permanent degeneration of the seminiferous tubules in the males. Hughes and Job in 1937 produced almost identical changes by irradiating the entire bodies of young rats or the caudal half of the bodies, but no such changes when the thymus alone was nearly completely destroyed by careful doses of roentgen rays. In view of the fact that the more recent work has involved relatively enormous dosages, over a relatively wide area, one is not inclined to agree with the authors that their results are entirely the result of destruction of the thymus. Their contention that surgical thymectomy does not show these effects because it is incomplete may justifiably be countered with the statement that neither does it destroy anything but the thymus.

Against the background of many years of negative results from thymectomy and thymus administration, the more recent work may be summarized thus: (1) The most potent preparations of thymus substance have no effect on rats even in huge doses given daily from birth to old age. (2) This extract, however, has accruing effects on successively treated generations, consisting of acceleration of growth, and marked acceleration of somatic and sexual maturation. (3) Surgical thymectomy is without effect on the individual, yet if repeated for several generations, slightly retards growth in daughter generations without significantly affecting maturation changes. The slight lag in growth is said to be countered by thymus extract. (4) Destruction of the thymus in very young rats by irradiation with roentgen rays retards somatic growth and causes sterility in the male, effects which have been shown also to follow irradiation of the caudal half of the body.

If this newer work has any significance for the physiology of the thymus, it constitutes the coup de grace for the concep-

tion of the thymus as an endocrine organ antagonistic to adolescence. This blow, however, has probably already been given, since clinical studies on sexual development and somatic growth following early irradiation of the thymus have shown no abnormalities. The thymus, like the pineal, if evaluated in the light of the work with extracts, is left without a clinical syndrome of either hypersecretion or hyposecretion.

In the case of both the thymus and the pineal, it is fatuous to say that either has been shown not to be an organ of internal secretion. Even a larger mass of negative evidence than is at present available will collapse unregretted in the face of satisfactory data pointing toward endocrine function. It has been the attempt of the present paper to show only that the available data fall far short of establishing endocrine function for either of these organs.

MUMPS, REPORT OF CASE TREATED WITH AZOSULFAMINE, (Neo-prontosil)

ROCKWELL EMERSON SMITH, M. D.

Henderson

A new treatment of Mumps with Azosulfamide, should be of interest to the profession, as the following case will demonstrate.

An adult 23 years old, weight 150 pounds, had mumps on the right side when a child. April 28th developed a typical attack, the left side. I saw the patient at noon; complaining of pain on mastication, malaise and slight temperature. The patient was put to bed. At 6 p. m. and at 9 p. m. fifteen grains of Azosulfamide were given (30 grains all told). The patient stated at 9 p. m. that there was no pain and he felt very well. April 29th, sixty grains were given (fifteen grains every three hours); April 30th forty grains were given (ten grains every three hours): May 1st no Azosulfamide was given; May 2nd, forty grains were given (ten grains every three hours).

April 28th, temperature 10 p. m. 98, no pain; April 29th, 9 a. m., temperature 96 and slight swelling on right side; temperature remained 98 throughout April 29th and 30th; swelling markedly reduced April 29th; almost entirely disappeared by April 30th and May 1st seemed to be entirely gone, slight induration on left side April 30th. The patient stated he felt fine and no

pain. No other treatment was used, save kept patient in bed and a mild laxative given the night of April 28th and 29th.

I am well aware of the fact that one case does not mean that sulfanilamide or its derivatives is a panacea for Mumps, but the results obtained in the use of this drug are so marked that I think it is well worth calling attention to the medical profession to try it in these cases and see if it acts as promptly as it has in this specific case. I daresay it has been used in Mumps by the profession, although I have not found any reference to it in the literature at my disposal.

BOOK REVIEWS

ESSENTIALS OF THE DIAGNOSTIC EXAMINATION.—By John B. Youmans, B. A., M. S., M. D., Associate Professor of Medicine and Director of Postgraduate Instruction, Vanderbilt University Medical School. The Commonwealth Fund, 41 E. 57th street, New York Publishers. Price \$3.00.

This handbook sets forth procedures of the diagnostic examination that are essential to all good medical practice. It presents in compact form a thoroughly sound and scientific plan which is adequate for the great majority of cases, and which, in the occasional more difficult case, indicates the kind of further study needed. The choice and orderly arrangement of procedures are based on many years of work with practicing physicians and students on day-to-day diagnostic problems.

Of special interest is the laboratory section, which presents the physiologic background of the tests, indications for their use, and their diagnostic significance. These tests, because of their simplicity as well as reliability, can be performed by the physician in his own office and in the majority of cases they make unnecessary more elaborate and expensive procedures. A list of the necessary apparatus and chemicals is given.

OXIDATION, FERMENTATION, VITAMINS, HEALTH AND DISEASE.—By Albert V. Szent-Gyorgyi, M. D., Ph. D. (cantob) D. H. C., Prix Nobel, Professor of Medical and Organic Chemistry, University of Szeged. Published for Vanderbilt University by the Williams and Wilkins Company, Baltimore.

This volume contains the five lectures comprising the Sixth Series of Abraham Flexner. Lectures delivered by the author at Vanderbilt University and presents a summary of his experiments in the field of biological oxidation conducted during the past fifteen years.

THE MARCH OF MEDICINE.—Edited by the Committee on Lectures to the Laity of New York Academy of Medicine, Columbia University Press, New York. Price \$2.00.

For some years the New York Academy of Medicine has sponsored highly successful popular lectures on interesting phases of medical history as seen with the perspective of modern medicine. These lectures bring out the highlights of medical progress. Gathered together here in book form, those for 1938 and 1939 make an exceedingly entertaining volume. In content they range from the subject of health in Elizabethan, England, to the romance of modern surgery. And while this work is sufficiently authoritative to prove of value to medical men implemented and enriched with a knowledge of the history of their profession, it is sufficiently simple and clear to prove of special value to those who have a marginal interest in medicine such as biology teachers, health educators, instructors in physical education, nurses, scientists, and technicians. And finally, the lectures are so well done that all others will find them highly intelligible. The book is recommended to all who would like to know how medicine has kept pace with and contributed to modern civilization.

PRINCIPLES OF SURGICAL CARE, SHOCK AND OTHER PROBLEMS.—By Alfred Blalock, M. D., Professor of Surgery, Vanderbilt University School of Medicine, Nashville. Illustrated. The C. V. Mosby Company, Publishers.

This volume comprises the nineteenth series of Beaumont Lectures and consists of outlined measures for the prevention of shock from a practical point of view.

Such subjects are discussed as dehydration, acid base disturbances, hypoproteinemia, avitaminosis, anoxia, pulmonary complications and intestinal distention. These lectures serve to continue uninterruptedly the series of physiological monographs inaugurated in 1922 as a tribute to William Beaumont, a surgeon who was the first to observe directly in the stomach of man (Alex St. Martin) the mechanism of gastric digestion.

MEN, PAST FORTY.—By A. F. Niemoeller, A. B., M. A., B. S., Author of American Encyclopedia of Sex. With a foreword, Winfield Scott Pugh, B. S., M. D., Harvest House, New York, Publishers. Price \$2.00.

This small volume explains the cause and suggested treatment for impotence. The closing chapter on the Change of Life in Men, is illuminating and interesting and is told in a simple easy language.

A TEXT BOOK OF PATHOLOGY.—By W. G. MacCallum, Professor of Pathology and Bacteriology. The Johns Hopkins University, Baltimore. Seventh Edition. Thoroughly Revised. 1302 pages with 697 illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Cloth, \$10.00.

The New (7th) Edition of Dr. MacCallum's book is the result of a particularly careful and comprehensive revision and includes the latest advances in the subject.

Of particular importance are the additions and chapters in the discussions of Virus Diseases, Glandular Disturbances and Vitamins. New material has been added on Disturbances of Intercellular Fluids and Lymph, on Metabolism, Mechanism of Circulatory Organisms, Pneumococcus Infection, Tetanus Infection, Influenza, Lymphopathia Venereum and Granuloma Inguinale and many other subjects.

Dr. MacCallum bases his discussion of pathology on etiology — an approach that has been heartily approved by teachers because it clarifies so effectively the pathology that lies behind each clinical picture. He follows each pathologic change to its cause, describing both anatomic alterations and functional disturbances so vividly that the reader can rapidly assimilate and retain the vital facts.

The 697 illustrations, many of them in full colors, are recognized as one of the finest collections of pathologic pictures in print.

PRECLINICAL MEDICINE, PRECLINICAL STATES AND PREVENTION OF DISEASE.—By Malford W. Thewlis, M. D., Attending Specialist, General Medicine, U. S. P. Health Hospitals, New York. The Williams and Wilkins Company, Baltimore, Publishers. Price \$3.00.

Methods of early recognition of disease are presented, special tests recommended, and clear indications given for preclinical therapy and prevention of disease and suffering. Here is a book that shows how to reach a synthetic diagnosis which conceives of the person as a whole against the background of his family, heredity, racial factors, and considers his intellectual equipment, social adjustment, the climatic conditions, the influence of past diseases, etc.

The author proves—by successful application of such principles in his everyday practice—that pathologic possibilities can be short-cut before they reach the symptom stage.

Preclinical Medicine does not necessitate hospitalization and is a promising field for all general practitioners who are in a favored position to detect preclinical signs because of their permanent contact with the patient.

THE NEWER NUTRITION IN PEDIATRIC PRACTICE.—By I. Newton Kugelmass, B. S., M. A., M. D., Ph. D., Sc. D. Attending Pediatrician, Broad Street Hospital, New York. Consulting Pediatrician, Lynn Memorial Hospital, Monmouth Memorial and Muhlenberg Hospital, N. J., etc. 183 illustrations. J. B. Lippincott Company, Philadelphia, Publishers. Price \$10.00.

The purpose of the book is to apply the newer knowledge of nutrition to every day practice of pediatrics. A modern experimental science is thus molded into the therapeutic armamentaria of a great clinical field. Much of the improved nutritional knowledge into the entire field of clinical pediatrics for the dual purpose of buoyant positive health and effective nutritional therapy is included in this volume.

INTRODUCTION TO MEDICINE.—By Don C. Sutton, M. S., M. D., Associate Professor of Medicine, Northwestern University, School of Medicine, Attending Physician, Medical Division of the Cook County Hospital, Chief of the Cardiac Clinic, Cook County Hospital, Chicago. With introduction by Ada Belie McCleery, R. M., Superintendent, Evanston Hospital. With 144 text illustrations with 14 color plates. The C. V. Mosby Company, St. Louis, Publishers.

This book represents the material adapted to the use of the nursing profession.

All of the various diseases are described together with a sufficient amount of nursing care. The book is well rounded by its confirmation to the curriculum guide and is well suited for use by schools of surgery.

HANDBOOK ON ORTHOPEDIC SURGERY. By Alfred Rives Shands, Jr., R. A., M. D., Medical Director of the Nemours Foundation, Wilmington, Delaware, Associate Professor of Surgery In Charge of Orthopedic Surgery, Duke University School of Medicine, Durham. In Collaboration with Richard Beverly Raney, B. A., M. D., Associate in Orthopedic Surgery, Duke University. Illustrated by Jack Bonacker Wilson. The C. V. Mosby Company, St. Louis, Publishers. Second Edition.

In this second edition an attempt has been made to bring to date those portions of the text in which new but accepted forms of therapy have been described. Many illustrations have been redrawn for the sake of uniformity and many new ones have been added.

A complete bibliography of outstanding articles written in English has been revised and brought up-to-date. All the illustrations are clear and to the point, many being original pen and ink drawings.

PSYCHIATRY FOR NURSES.—By Louis J. Karnosh, B. S., Sc. D., M. D. Associate Clinical Professor of Nervous Diseases, School of Medicine, Western Reserve University, Director of Neuro-Psychiatry, City Hospital, Cleveland, Consulting Neuro-Psychiatrist, Cleveland Clinic and Edith B. Gage, R. N. Supervisor Neuro Psychiatric Division, City Hospital, Cleveland. Illustrated. C. V. Mosby Company, St. Louis. Price \$2.75.

The combined viewpoint of both a doctor and a nurse is practically a necessity in the preparation of a book in this field. The collaboration of Miss Edith Gage with Dr. Karnosh throws together the knowledge of two people well trained in psychiatry and in teaching the subject to students. They have also drawn on the advice and experience of supervisors, instructors in nursing, head nurses, resident physicians, psychologists, occupational therapists, and physiotherapists. From such a comprehensive field it has been only natural to bring forth a text that is wide in viewpoint, has balance of type, and amount of material, is up to the minute, and is usable and adaptable to the classroom.

PHYSICAL DIAGNOSIS.—By Elmer and Rose. Revised by Harry Walker, M. D., F.A.C.P., Associate Professor of Medicine, Medical College, of Virginia, Richmond. Eighth Edition with 295 illustrations. The C. V. Mosby Company, Publishers, St. Louis, Price \$8.75.

The very recent advances in pathology and the more frequent employment in clinical medicine of the more exact diagnosis, has made it imperative to have an authoritative work available for reference and guidance such as is offered in this new 8th edition.

Much of Dr. Rose's excellent work has been retained by the author. However the subject matter has been rearranged and rewritten when the author deemed it necessary.

TOMORROW'S CHILDREN—PROCEEDINGS OF THE SOUTHERN CONFERENCE.—By Charles Magill Smith, 501 Madison Avenue, New York.

The purpose of the conference, a continuing organization, is to bring together a number of people who have an active interest in the future of the Southern region with particular emphasis on the welfare of the children. One of the best papers read before the society and published in this volume, is an address, *The South's Tomorrow*, by Barry Bingham, President and Publisher, Louisville Courier-Journal which should be read and studied by every thoughtful citizen of the South.

THE MANAGEMENT OF OBSTETRIC DIFFICULTIES.—By Paul Titus, M. D., Obstetrician and Gynecologist to the St. Margaret Memorial Hospital, Pittsburgh, Consulting Obstetrician and Gynecologist to the Pittsburgh City Homes and Hospital, Mayview, and to the Homestead Hospital, Homestead, Pa., Secretary to the American Board of Obstetrics and Gynecology. With 368 illustrations and 5 color plates. Second Edition. The C. V. Mosby Company, Publishers. Price \$10.00.

In this new edition 75 new illustrations have been added, with considerable enlargement of the text. Among the many new items of importance that have been included are the advances in the relief of sterility, the detailed lectures of X-ray pelvimetry, technical advances in various operative procedures, the management of anemias in pregnancy, improvements in obstetric analgesia and anesthesia.

This work is an effort to develop a practical aid to physicians who are contending with obstetrical difficulties and emergencies.

MINOR SURGERY.—By Frederick Christopher, S. B., M. D., F.A.C.S., Associate Professor of Surgery at the Northwestern University Medical School, Chicago; Chief Surgeon at the Evanston, (Ill.) Hospital. With a Foreword by Allen B. Kanavel, M. D., F.A.C.S. Fourth Edition. Reset. 990 pages with 639 illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Cloth, \$10.00.

Many new methods of treatment and almost every chapter has been rewritten, making the volume an essential addition to the library, not only of the surgeon but the general practitioner. New drugs and new anesthetics are given with detailed guidance on dosage and administration in addition to the use of injection treatment. New facts and treatment of head injuries, low back pain, fistula, peripheral vascular disease, deep infections of the neck, varicose veins and many other diseases of equal importance. There is a full discussion of sulfanilamide therapy, its dangers and dosage.

SURGICAL PATHOLOGY OF DISEASES OF THE MOUTH AND JAW.—By A. E. Hertzler, M. D., Surgeon to the Agnes Hertzler Memorial Hospital, Holstead, Kansas, J. B. Lippincott Company, Publishers.

Although the author announces this is the last of 10 volumes he has written, his readers hope he will reconsider. This volume is well illustrated and gives a graphic description of all pathological conditions met with in the ordinary surgical and general practice.

CLINICAL DIAGNOSIS BY LABORATORY METHODS.—By James Campbell Todd, Ph. B., M.D., Late Professor of Clinical Pathology, University of Colorado, School of Medicine, and Arthur Hawley Stanford, A.M., M.D., Professor of Clinical Pathology, University of Minnesota (The Mayo Foundation); Head of Division on Clinical Laboratories, Mayo Clinic. Ninth Edition, thoroughly Revised. 841 pages, with 367 illustrations, 29 in color. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$6.00 net.

This book is a clear and specific presentation of the new and standard clinical laboratory tests essential in the study and practice of medicine. Not only does it give the step-by-step technic of each test but it also includes the interpretation of the findings of the tests in terms of diagnosis.

Here indeed is truly a clinical pathology—a thorough, practical and authoritative presentation that is a leader in its field. Such important subjects as the sputum, blood, urine, gastric and duodenal contents, the feces, clinical chemistry, vaccines, serums, bacteriologic and various other laboratory methods, are taken up in detail. Then there is an Index-Outline of Laboratory Findings that is decidedly of the greatest value. In this Index diseases are arranged alphabetically. Under each disease are given its outstanding laboratory characteristics with cross references to the page of text where full instructions are given for performing each test.

For this New (9th) Edition the entire book was subjected to one of the most thorough revisions it has ever received. New sections were added, the new texts included, refinements and improvements made — all in order that the book might truly give the very latest knowledge on clinical laboratory diagnosis.

A TEXTBOOK OF SURGERY.—By American Authors. Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery at Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. Second Edition, Revised. 1695 pages with 1381 illustrations on 752 figures. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$10.00 net.

The dominant plan considered in the textbook is to give the student a concise presentation of surgery by the best authorities in Surgery in America.

These contributors which have made this volume possible were chosen after careful thought and consultation because of their outstanding achievements. With few exceptions these men are actively engaged in teaching surgery.

The work was drastically revised for this new

edition. Each section reflects the latest accepted knowledge and practice. New discussions have been added on such subjects as obstruction of the bile ducts, tetanus, lymphogranuloma inguinale, anal fistula, anorectal venereal diseases, benign rectal stricture, sulfanilamide, Brooke operation for fracture of the patella by excision, Henry midline extraperitoneal operation for femoral hernia, surgical treatment of ulcerative colitis, value of sterols (Vitamin K) to the jaundiced patient and a host of other subjects far too numerous to mention here.

This work is really a series of monographs written by 188 distinguished American authors, teacher-specialists who have been brought together under the editorial guidance of Dr. Christopher. It covers both General and Special Surgery, and includes only those methods that have been thoroughly proved and accepted. It is concisely written, free from controversial matter, and gives a full discussion of each disease, from definition and causes on through treatment and after-care. Surgical technic is detailed step by step, and in addition nonoperative measures are included—such as the use of drugs, diet, radiations, etc. There are 1381 illustrations on 752 figures. An up-to-date one-volume surgery worthy of a place on the desk of every surgeon and general physician.

ENDOCRINOLOGY IN MODERN PRACTICE.—By William Wolf, M.D., M.S., Ph. D. Endocrinologist to French Hospital, Attending Endocrinologist, Misericordia Hospital, Consulting Endocrinologist, New York University, Dental School. Second Edition, Completely Revised. W. B. Saunders Company, Publishers, Philadelphia. Octavo of 1077 pages, illustrated. Cloth, \$10.00.

This volume anticipates the needs of the general practitioner in this unusually valuable volume, by making it clinically practical, and in his daily routine of applying the newest methods of diagnosing and treating endocrinopathies.

The volume is rich in practical treatment, applied therapy, which is the result of the author's own great clinical experiences.

A full detail description with illustrations is given under each disease. There is an extensive chapter on the pharmacodynamic action of glandular products when used as medicines rather than as substitutes. Dr. Wolf lists all available commercial glandular products, giving dosage, potency equivalent, unit in which sold, etc. And worthy of special mention are the unique chapter summaries which give in highlight form the salient points of each disease discussed.

NUTRITION AND DIET IN HEALTH AND DISEASE.—By James S. McLester, M.D., Professor of Medicine, University of Alabama, Birmingham, Alabama. Third Edition, Entirely Rewritten. 838 pages. Philadelphia and London: W. B. Saunders Company, 1939. Cloth \$8.00.

Physicians in all fields of practice, and particularly General Practitioners, are enthusiastically welcoming the brand New (3rd) Edition of Dr. James S. McLester's book on Nutrition and Diet. It is really a new book because Dr. McLester has rewritten it from beginning to etc.

He gives the latest discoveries concerning vitamins and their functions; new facts about deficiency diseases; new tables on vitamins, including a comprehensive one giving the vitamin-value of cooked foods, the brand new table of food values soon to be issued by the Bureau of Home Economics, Department of Agriculture, etc.

There are new chapters on energy exchange, and need for protein. The newest facts are given on the nutritive requirements of pregnancy and lactation, the dietary treatment of toxemias of pregnancy, relation of diet to immunity and control of infectious diseases. Especially important are the discussions of diet in dealing with digestive and metabolic disorders. There are two new and special chapters—one by Dr. Philip C. Jeans on Infant Feeding; the other by Dr. Dean Lewis on Feeding of the Surgical Patient. New diet lists and advice on the preparation of food are also included.

Dr. McLester gives you sound comprehensive and thoroughly up-to-date advice on how to utilize modern dietary methods in the treatment of virtually any disease that you may meet in medical and surgical practice.

MANUAL OF THE DISEASES OF THE EYE.—By Charles H. May, M. D. Consulting Ophthalmologist to Bellevue, Mt. Sinai and French Hospital New York; Formerly Chief of Clinic and Instructor in Ophthalmology, Medical Department of Columbia University, and Director of the Eye Service at Bellevue Hospital. New York.

With the assistance of Charles A. Perera, M. D., Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department of Columbia University, New York. William Wood & Company, Baltimore, Publishers. Price \$4.00.

The standard nature of this textbook is readily apparent from the fact that it is the 15th edition since 1900 and has been translated into 10 different languages. It is still a standard for teaching purposes and is a complete concise reference for the general practitioner.

MENSTRUAL DISORDERS.—By C. Frederic Fluhmann, B. A., M. D., C. M., Associate Professor of Obstetrics and Gynecology, Stanford University, School of Medicine, San Francisco, Calif.; Assistant Visiting Obstetrician and Gynecologist to Lane and Stanford University Hospitals; Fellow of the American Gynecological Society. 329 pages with 119 illustrations. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$5.00 net.

This completely new book by Dr Fluhmann definitely constitutes one of the most significant additions to the literature that has appeared in years. In but a few weeks, this unusual book has achieved a success far beyond the most optimistic prepublication estimates. Family Physicians, Gynecologists, Endocrinologists, Physicians in all fields of practice will find this volume very valuable in their daily work. Dr. Fluhmann has indeed written a sound, dependable guide that tells specifically, and in few words, exactly how to deal with these common disorders.

This book is of importance because it deals with a subject of unusual interest, because it records the experience of a distinguished authority, and, finally, because it gives completely the very guidance that will help treat menstrual disorders successfully, a trouble all physicians at some time have to contend with.

HERNIA, ANATOMY, ETIOLOGY, SYMPTOMS, DIAGNOSIS, DIFFERENTIAL DIAGNOSIS, PROGNOSIS AND THE OPERATIVE AND INJECTION TREATMENT — By Leigh F. Watson, M. D., Member of Attending Staff of California Lutheran Hospital and Methodist Hospital of Southern California, Los Angeles. Second Edition. The C. V. Mosby Company, Publishers, St. Louis. Price \$7.50.

The object of this book is to present within reasonable space the most important features of the anatomy, etiology, symptoms, diagnosis, differential diagnosis and prognosis of hernia, together with the best operative technic of modern surgery.

A brief historical outline is incorporated in the more important chapters. More space has been devoted to the anatomy than is usual in works on hernia, so that such material may be accessible and render unnecessary a search through exhaustive volumes in anatomy.

The adoption of the modern injection method for treatment of certain types of reducible hernia, by many industrial corporations, insurance companies and state industrial commissions necessitated the revision of the first edition.

The bibliography has been carefully selected, in all making this volume a splendid edition to any medical library.

CANCER HANDBOOK OF THE TUMOR CLINIC.—Stanford University, School of Medicine. Edited by Eric Lilencrantz, M.D., Chief of Tumor Clinic, Stanford University, School of Medicine, Consultant in Neoplastic Disease, U. S. Naval Hospital, Mare Island, U. S. Marine Hospital, San Francisco, Stanford University Press, Stanford University, California, Publishers. Price \$3.00.

A brief practical handbook covering the largest portion of what is seen in an active cancer clinic but avoiding the bulk of encyclopedic treatment.

Designed especially for a brief graduate course, the Cancer Handbook is elementary enough for any medical practitioner, yet complete enough to prepare the practitioner for adequate handling of patients as to cancer, through the stages of suspicion, diagnosis, consultation, and treatment. It is well fitted to serve as a desk summary.

The methods outlined are founded on present practice at the Stanford University Tumor Clinic—the integrated experience of all its active members. Controversy is avoided and one practical answer is given to each question likely to arise.

DIABETES, PRACTICAL SUGGESTIONS FOR DOCTOR AND PATIENT.—By Edward L. Bortz, A. B., M.D., F.A.C.P. Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania; Chief of Medical Service B, The Lankenau Hospital, Philadelphia, with a Foreword by George Morris Piersal, B.S., M.D., F.A.C.P., Professor of Medicine Graduate School of Medicine, University of Pennsylvania, Editor in Chief, *The Cyclopedia of Medicine*. Second Edition. Revised and Enlarged. Illustrated. F. A. Davis Co., Publishers, Philadelphia. Price \$2.50.

This new book enables the intelligent diabetic to cooperate readily with his physician, to understand clearly his condition and to live a happy and useful life.

Dr. Bortz has here incorporated much new knowledge for the handling of diabetic and obese patients and has enlisted the aid of a number of outstanding specialists to deal with different phases of the subject.

While covering every advance in treatment and every need of the patient this book is in no way intended as a substitute for the physician. It will help him by saving a bit of time and patience in prescribing a greater variety in the choice of foods and a more easily carried out diet plan.

This book is acclaimed by physicians as a safer and more helpful guide for the doctor

as well as the patient. Dr. F. H. Church says, "It certainly is a useful volume. From patient's and physician's viewpoint it is the most practical presentation I have yet seen. To the busy practitioner, this handbook, supplemented by the diet cards, is a needed, practical time saving desk assistant. The patient will find the answer to all his many questions concerning his disease."

A glance at the Table of Contents and the list of contributing authors will convince you that every detail in the care and treatment of diabetes is covered clearly and authoritatively.

The separate diet card simplifies the prescribing of dietaries in terms of the kitchen and should be kept on hand at all times.

MEDICINE IN MODERN SOCIETY.—By David Riesman, Philadelphia, Published by the Princeton University Press, Princeton.

This volume has been developed from a series of lectures known as the Vanuxem lectures, which were delivered by the author at Princeton University and has been recommended by the Book of the Month Club. In this fascinating book Dr. Riesman tells the story of the development of modern medicine in a simple, stimulating and thoroughly personal way. He has been on the staff of the University of Pennsylvania Medical faculty since 1912 and is now professor of the History of Medicine and Professor Emeritus of Clinical Medicine. For forty years he has been teaching medicine and is known to thousands of physicians for his wealth of knowledge, his astute and broad minded interpretation of medical principles.

It is an indispensable book to those who want to understand the extraordinary changes which the medical profession is now undergoing.

MODERN CLINICAL PSYCHIATRY.—By Arthur P. Noyes, M.D., Superintendent, Norristown State Hospital, Norristown, Pa. Second Edition, Rewritten and Enlarged. 570 pages. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$5.00 net.

Psychiatry has become an increasingly important branch of medicine. Students and general practitioners will welcome this comprehensive volume on account of its clear treatment of many subjects so long surrounded by myths and clouds of superstition. In this new and latest addition there is an interesting chapter dealing with some of the psychiatric aspects as a part of general medicine. Pharmaceutical treatment of certain psychosis especially by shock or convulsant agents is described in detail, while many of these agents have been given a permanent place in psychiatry treatment, they serve as a stimulus to research. There is a comprehensive bibliography at the end of each chapter.

THEORY AND PRACTICE OF PSYCHIATRY.—By William S. Sadler, M.D., Chief Psychologist and Director, Chicago Institute of Research and Diagnosis.

In this treatise Doctor Sadler has furnished a textbook and reference handbook that deals most intimately with the many types of neurotic, emotional and personality disturbances that are so commonly met with in the every day practice of the general practitioner, and at the same time, gives a modern interpretation of psychiatry in the strictest scientific sense.

Source material for study and reference is very readily located in this volume through the pages of the contents and then in addition to this, the book carries a very illuminating glossary of word or term definitions; this is followed by a very carefully prepared index.

The reader of Doctor Sadler's textbook, be he specialist, general practitioner or other professional reader, finds advanced thought and practical interpretation of modern psychiatry in a very attractive form.

C. V. Mosby Company, Publishers, St. Louis.

THE SURGICAL TECHNIC OF ABDOMINAL OPERATIONS.—By Julius L. Spivack, M. D. Assistant Professor of Surgery, University of Illinois College of Medicine; Professor of Operative Surgery and Surgical Anatomy, Cook County Graduate School of Medicine, 718 pages with 677 illustrations on 362 figures. Published by S. B. Debour, Chicago, 1936. Cloth.

This book is a well arranged single volume on the more important and standard procedures of the day in surgical technic.

The drawings and illustrations are well planned, and excellent in their definition.

An exhaustive bibliography follows each chapter which should be invaluable to one wishing to enlarge on any definite technic.

It should appeal to the finished surgeon as a ready reference and to the student of surgery as a guide in surgical technic.

THE NATIONAL FORMULARY, SIXTH EDITION, NATIONAL FORMULARY VI—Prepared by the Committee on National Formulary by authority of the American Pharmaceutical Association, Official from June 1, 1936. Published by the American Pharmaceutical Association, Washington.

The National Formulary is revised under the direct authority and supervision of the Council of the American Pharmaceutical Association.

It contains the official name, standards for purity and strength. There has been added a section devoted to the preparation of stains, reagents, culture media and solutions used in clinical laboratory procedures.

A HANDBOOK OF AMBULANT PROCTOLOGY.—By Charles Elton Blanchard, M. D., Author of the Epitome of Ambulant Proctology, Ambulant Proctology Clinics. Textbook of Ambulant Proctology, The Dr. Betterman Books, Editor Bulletin of Office Practice. Illustrated with many photographs and drawings. New and second edition. The Medical Success Press, Publishers, Youngstown, Ohio. Price \$5.00.

The author has included in this condensed volume all the salient items of value that was contained in his earlier books and has added many new methods of treatment and technic. These procedures are original with the author and are found in no other volume.

The profession is indebted to Dr. Blanchard for discovering and popularizing the ambulatory treatment of hemorrhoid and has had more than 450 student physicians visit his clinic and the spread of this method of treating hemorrhoids has been his mission in life.

MEDICAL UROLOGY.—By Irvin S. Koll, B. S., M. D., F.A.C.S., Attending Urologist Michael Reese Hospital. The C. V. Mosby Company, St. Louis, Mo., Publishers. Price \$5.00. With 92 text illustrations and 6 color plates.

In writing this book the author's principal idea has been to present the subject in such a manner as to be of practical value to the general physician and an aid to the medical student.

Most of the subject matter presented represents the personal experience of the author and the differential diagnosis, pathology and an outline of the treatment is so arranged that the general practitioner can easily find the material.

The book is written in a concise, practical manner and is a valuable addition to the library of the urologist as well as the student and general practitioner.

BRIGHT'S DISEASE AND ARTERIAL HYPERTENSION.—By Willard J. Stone, B.Sc., M.D., F.A.C.P., Clinical Professor of Medicine, School of Medicine, University of Southern California, Los Angeles; Attending Physician to the Pasadena Hospital, Pasadena, Calif. 352 pages with 31 illustrations. Philadelphia and London: W. B. Saunders Company, 1936. Cloth, \$5.00 net.

The book represents the author's twenty years experience in the study of this most important subject since every physician at some time during his practice has to treat Bright's disease and the profession is very fortunate to have such a splendid volume covering the entire subject.

THE TRAFFIC IN HEALTH.—By Charles Solomon, M. D., Assistant Clinical Professor of Medicine, Long Island College of Medicine, Lecturer in Materia Medica, Training School for Nurses, Jewish Hospital of Brooklyn. Copyright 1937. Navarre Publishing Company, Inc., New York City, Publishers. Price \$2.75.

The problem, yet unsolved by adequate federal or state legislation or facilities for enforcement of present laws, of the sale of vicious drug and cosmetic frauds is discussed by a physician in its effect on the general health of the nation.

The lack of control of advertising as it affects the use of such products by the uninformed even with the sincere application of present labelling laws is brought out forcibly by citation of cases and government records.

The Congress has under consideration various bills for the improvement of the present food and drugs act. Various organizations and individuals with more thought to personal gain than to protection of the health of the public have so far prevented the enactment of the federal law. By education of the laity, and this book gives information for such purpose to the physician, we can expect that demands will be made on Congress through the individual Congressmen to pass an adequate law to protect the consumer against false, fraudulent and dangerous foods, drugs and cosmetics as they are now sold and advertised.

A DAILY LOG FOR PHYSICIANS (Dr. Colwell's)—The Colwell Publishing Company of Champaign, Illinois has sent the Journal a copy of its "Brief, simple, accurate financial record for the physician's desk" for 1937. This is the simplest, clearest and most effective day book for the busy physician that we have ever seen. Its arrangement and the accompanying cards for laboratory and clinical reports are complete and simple. The cost is reasonable. The Journal would suggest that any physician interested in improving his methods of keeping accounts should correspond with this firm, which evidently has a sensible practicing physician as its guiding spirit.

RESEARCH IN DEMENTIA PRECOX.—By Nolan D. C. Lewis, M. D. Published by The National Committee for Mental Hygiene, 50 W. 50th Street, New York City. Price \$1.50.

This book presents a comprehensive picture of what is being done in the whole field of dementia precox research from every scientific angle. It is in a sense the foundation upon which the further development and future planning of investigation in this field will be largely based.

A TEXTBOOK OF CLINICAL NEUROLOGY.—By Israel E. Wechsler, M. D., Professor of Clinical Neurology, Columbia University, Neurologist, The Mount Sinai Hospital, Attending Neurologist, Neurological Institute. Fourth Edition, Revised. Octavo of 244 pages, illustrated. Cloth, \$7.00 net. W. B. Saunders Company, Publishers, Philadelphia.

This splendid text book of clinical neurology presents the various diseases in such a way that the signs and symptoms grow out of the anatomico-pathological substratum and are seen to be the consequent upon the underlying physiological disturbance. There are many reproductions of pathological specimens and anatomical drawings, which permit of the interpretations of signs and symptoms and lend understanding to the clinical manifestations.

The author of this book has given a digest of what is known in neurology without stressing the polemic material or detailing case reports.

OBSERVATIONS OF A GENERAL PRACTITIONER.—By William N. Macartney, M.D. Richard G. Badger, Publisher. The Gorman Press, Boston.

This work is written for the general practitioner, by a general practitioner, a family doctor for his brethren from knowledge gleaned from a long and arduous experience in private practice. The writer has given the results of his observations and deductions. It is not a textbook but has a wonderful store of knowledge which will be found useful in dealing with the many problems that confront the doctor in his daily rounds. It should serve as an inspiration and guide for the busy physician.

WHY WE DO IT, AN ELEMENTARY DISCUSSION OF HUMAN CONDUCT AND RELATED PHYSIOLOGY.—By Edward C. Mason, M.D., Ph. D., F.A.C.P., Professor of physiology, University of Oklahoma School of Medicine, Oklahoma City. The C. V. Mosby Company, Publishers, St. Louis. Price \$1.50.

The author has presented a convincing argument which supports the contention that the child is both egocentric and narcissistic and necessarily considers itself to be the center of the universe. It is from this center that it constructs its conception of the universe. Our problem is to develop the child's intellectual potentialities and transform it into an emotionally mature adult. If we are successful the individual is then able to meet the problems of life directly and efficiently; he will deal in reality and will not resort to the phantasy practiced by the neurotic or regress to the prelogical state of the psychotic.

Kentucky Medical Journal

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Incorporated

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NEXT MEETING: LEXINGTON
SEPTEMBER 16-19, 1940

MEDICINE

YESTERDAY AND TODAY

The comparison between the medicine of the early centuries and an estimate of the value of the contributions of that time as related to the nineteenth and the present era must take into consideration the state of education and the mental equipment of the individuals of each period. Those who labored in this unexplored field at the earliest time of which there is any record had to overcome their own ignorance and the many prejudices with which they were surrounded.

The great work done by the few outstanding men of that period is worthy of emulation even by the leaders of the twentieth century and later generations. Their contributions to medicine and general information stand out in bold relief. Some gave their best efforts to the study of anatomy and to the study of the normal processes in man and animal life. Subsequently these and others attempted to solve some of the morbid conditions occurring then, and to do this necessarily delved into normal physiologic changes and contributed to the literature upon this subject. One stands amazed at the amount of work done by these investigators.

All those who engage in the service to the sick, the injured and the crippled must have a large amount of the milk of human kindness in their souls. In order to give the best service they should be vigorous, healthy and capable to stand up under prolonged strain and fatigue. Some wonderful and brilliant physicians in this service have broken down at this point. We must respect them and sympathize with them in their failure, more perhaps, than in their successes which often have been many. Some of the greatest men in history have fallen over such a hurdle.

A considerable number enter upon the study of medicine who are better suited to some other pursuit. Some because their mental make-up does not permit them to apply themselves closely and continuously to the necessary study and application to acquire proficiency; others have not the physical strength to perform the task. Physicians give not only of their physical endurance but of their nervous energy and their whole mental and spiritual force as well as their physical stamina in helping

the family of a very sick person through a prolonged and critical illness.

Hope, to my mind, is the most wonderful thing in human life and must never be lost in the combat with disease. You, physicians, have surely found that by your ability to inspire hope unto the patient, you have helped to win the battle. Surgeons appreciate the fact that a successful result is more difficult to obtain when the patient has no hope of recovery.

Next in importance in medical success is the capacity of the physician to inspire faith in the mind of the patient that he has the ability to bring him through. The trusting, loyal patient is much more likely to recover than the captious, critical and impatient individual. And how many of these are found in every community? No battle is ever won by giving up the fight. It is true, however, that many a life is lost by over zealous efforts upon the part of the attendants, family, and friends, to hasten his recovery. One must never overlook the wonderful recuperative powers bestowed upon us by our Maker and the correct living of our own ancestors.

Rarely have I ever declined to treat any patient no matter how hard to control, yet once or twice in my life have I been compelled to advise such a patient to select another doctor. Occasionally this will change the patient's attitude, always it will restore the physician's self respect and decorum. This does not mean that the doctor should be abrupt, contentious and quarrelsome, but suave and calm. In the words of our great confrere of the older generation, Lewis S. McMurtry: "Suaviter in Modo, Fortiter in Re," (Strong in Affairs, Suave in Manner). If one desires to control the situation a certain amount of firmness is necessary just as it is in many other situations in life.

Those who enter the profession of medicine should first learn to be decisive. Men who have no decision of character or opinion have little place in medicine. The student must learn to arrive at an opinion and be willing to write on the chart his diagnosis or at least his impression, for a snap diagnosis is often an error. The most valuable result of the present method of teaching by bedside instruction is the development of this trait in the young physician. Do not "dilly, dally." Another thing which it teaches is to make

accurate observations. Really, it is surprising how great a difference there is in the ability of different individuals to make accurate observations.

Accuracy should carry all the way through a medical career. In prescribing, it is essential to safety; in giving directions to nurses, instruction to the patient or to the family it often means success and its neglect, failure. In such cases the written order of instruction leads to no confusion and in medico-legal cases is of inestimable value. Of course one must have confidence in his own findings and conclusions and recognize the effect of being incorrect. The tendency is to keep one from carelessness and inattention which is probably the greatest cause of medical mistakes.

The basis of success in medicine lies, perhaps, in making truth the foundation upon which the practitioner builds. Truth is the most essential evidence of character, and what is the value of a scientific study if it is not based on truth? Who gives any regard to the opinion of a pathologist, a physicist, a chemist, a physiologist, a physician or even a theologian who is known to state an untruth? What is true in the knowledge of today may be untrue on the morrow from new facts discovered.

A closer guard of the truth of Radio broadcasts would be of marked benefit to the people. This does not apply alone to the medicines advertised, but to all communications for public consumption.

Could diplomats have the power to present the truth instead of the use of language to conceal facts, what a fine world we would have in which to live. The men in science who live on in history are those who believed what they wrote to be true and admitted any errors which were advanced and later found to be incorrect.

In every generation there are men of medicine who have the same feelings, desires, ambitions, and hopes, with similar talents, similar frailties, similar jealousies and temptations. All are committed to a life of service and are willing to serve. They differ most in their personality, their energy, their cordiality, their secretiveness, their frugality, their manner of address, their kindness, their combativeness. Some are impulsive and some are timid and must be drawn out to be appreciated,

A man of force will always meet friction, but after all without friction there is no progress. When two brilliant minds meet and exchange ideas sparks will fly and ideas will unfold and spread, producing great results.

Modesty is a great virtue, but its progress is slow and while I advise and commend it, I fear that I do not possess a large degree of this valuable trait. Overweening conceit is most despicable and I find myself often attempting to hide this fault if I possess it. In all the walks of life the characteristics mentioned are observed in some degree. The medical profession will stand comparison with any group of men anywhere and I am proud to be enrolled among its members. It needs no apology and I make none. It has contributed more to the happiness, comfort, joy, pleasure and success of the people than any other class of citizens.

It has received great rewards in esteem, appreciation, and sometimes in compensation for its endeavors. Rarely it has received calumny, criticism, and vilification. Yet I am proud to state that for its greatest work in caring for the charity service for centuries and for its great aid to the Public Health Service it has received no compensation and now stands unjustly before the bar of public opinion because of the ignorance of facts among those high in political position many of whom are indebted to physicians in thousands of ways.

Had not the President and the Congress been misled by certain self-styled, so-called "Social Uplifters" there would be no effort to condemn Medical Service to regimentation.

J. Garland Sherrill.

THE LEXINGTON MEETING

The Fayette County Medical Society is actively completing all the arrangements to make this one of the most pleasant and instructive meetings in the annals of the Association. Ample hotel space has been reserved in the spacious hotels by the Chairman of Hotel Committee, Doctor C. C. Garr. Write immediately for your room. The Golf Committee has a prize for every kind of player. A tour through the Stock Farms and all points of interest around this historic city, has been arranged.

Dr. Stanley S. Parks, Chairman of the Hobby Committee, will reserve space for any kind of hobby or art-craft you can make, even kodak pictures of your favorite vacation places will be accepted. Make this a post-graduate study holiday.

MEDICAL PREPAREDNESS IN RELATION TO NATIONAL PREPAREDNESS

National preparedness—total preparedness—is the order of the day. Under such a program, the duties of the medical profession in advancing medical preparedness are obvious. The situation unquestionably has been accepted by the profession at large in the same spirit of patriotism and service which has characterized its actions in former emergencies. During World War No. 1, more than 30,000 members of the organized medical profession served with the armed forces in some capacity and approximately as many more served in a semi-military or associated civilian capacity at home.

In the present emergency the House of Delegates of the American Medical Association, realized that a definite program prepared by the A. M. A. in cooperation with State and Federal agencies would be advantageous, and to this end, a committee of ten under the Chairmanship of Doctor Irvin Abell and with representatives from the House of Delegates in each of the nine military corps areas of the United States, was appointed. Ex-officio members from the central office of the A. M. A. and the Board of Trustees were added to this Committee.

Meetings of this Committee have been held and plans are under way for a survey of the entire medical profession against "M"-day. A questionnaire has been formulated and mailed to every licensed physician in the United States seeking information which will permit the allocation of each physician in the most advantageous manner. It must be remembered that this is a plan to secure service to the civilian population, as well as the armed forces. The first and immediate objective is the collection of this statistical data as represented in the questionnaire, and it is to this end that I vigorously urge you to fill out the questionnaire, immediately and forward it to the Headquarters office of the A. M. A. State officers and county medical officers are urged to cooperate in this drive to the end that the Fifth Corps Area may have 100% answers to this questionnaire. If you have not received a blank, or if for some reason the questionnaire has been lost, another will be available to you through the office of the Chairman of your State Committee on Medical Preparations. Once this objective of statistical data is

obtained, further problems will be enormously simplified.

Fill out your questionnaire immediately.

Fred W. Rankin, M. D.

Representative, Fifth Corps Area
on the National Committee for
Medical Preparedness.

A DISTINGUISHED GUEST

The City and County Health Officers who meet in the Brown Hotel, Louisville on July 29, 30, and 31st, will have as a most distinguished guest, Dr. Reuben L. Kahn of Michigan, who was the originator of the well known Kahn test, which is now the standard test for syphilis in the State Board of Health, and it has been adopted by the former League of Nations as its standard test for syphilis.

Any doctor in Kentucky is welcome to this meeting and to have the pleasure of hearing Dr. Kahn and profit by his marvelous intellect.

REFRESHER COURSE IN PSYCHIATRY

Under the auspices of the Medical Education Board of the Rockefeller Foundation, there will be a rather intensive two weeks refresher course in Psychiatry to be held at the Central State Hospital, Lakeland, in September.

This is one of several courses given throughout the country in an effort to refresh physicians interested in Psychiatry. The entire medical profession in Kentucky is invited to attend these meetings. They will consist of lectures and demonstrations on such related subjects as Neurology, Psychopathology, Psychobiology and Psychotherapy. Treatment of the psychoneuroses, as well as the psychoses, will be taken up. This is a marvellous opportunity to hear the best minds in the country in this line of work.

Some of the lecturers will be Doctor Oskar Diethelm, Professor of Psychiatry, Cornell University; Doctor Franklin G. Ebaugh, Professor of Psychiatry, University of Colorado; Doctor Edward G. Billings, Director of Liaison Service, Colorado State Hospital, and many others.

There will be no fees charged, and all in all, it is designed for the men in this part of the country. For full details of the exact dates and schedule, see the next issue of the Journal. For further details write to William K. Keller, M.D., Assistant Professor of Psychiatry, University of Louisville School of Medicine.

OFFICIAL ANNOUNCEMENT

PRELIMINARY PROGRAM

KENTUCKY STATE MEDICAL ASSOCIATION

LEXINGTON

September 16, 17, 18, 19, 1940

Tuesday, September 17

9:00 A. M.

Call to Order by the President

Invocation

Address of Welcome

Response

Installation of President

Report of Committee on Arrangements,
C. A. Vance, Chairman.

SCIENTIFIC SESSION

Tuesday, September 17

10:00 A. M.

CASE REPORTS

1. Tumor of Small Intestine.....
..... Herman Mahaffey
Louisville

Discussion opened by.....

..... Malcom Thompson
Louisville

2. Parathyroid Tumor, R. Arnold Griswold
Louisville

Discussion opened by..Harper Richey
Louisville

3. Adrenal Tumor....Joseph E. Hamilton
Louisville

Discussion opened by.....

1. Some Behavior Problems in Infancy
and Early Childhood...W. F. Lamb
Russellville

Discussion opened by W. W. Nicholson
Louisville

2. Prophylactic Measure During Childhood and Choice of Preparation
.....C. D. Cawood
Lexington

Discussion opened by....James Bruce
Louisville

3. Vitamins—Their Use in Children..
..... T. J. Marshall
Paducah

Discussion opened by..Harry Andrews
Louisville

SPECIAL ORDER

Tuesday, September 17

12:00 M.

ORATION IN SURGERY

- Lung Abscess Allen E. Grimes
Lexington

SCIENTIFIC SESSION

Tuesday, September 17

2:00 P. M.

1. Appendicitis in Children James Pritchett
Louisville
Discussion opened by Chas. Vance
Lexington
2. Obscure Fevers H. V. Noland
Louisville
Discussion opened by .. Virgil Simpson
Louisville
3. Uterine Bleeding..... M. J. Henry
Louisville
Discussion opened by .. C. W. Hibbitt
Louisville
4. An Evaluation of the Present Status
of Male Hormone Therapy.....
..... James R. Hendon
Louisville
Discussion opened by Clayton McCarty
Louisville

Tuesday, September 17

8:00 P. M.

- An American Health Program.....
..... Nathan B. Van Etten
New York
- Surgical Consideration of the Gall Bladder and Bile Ducts.. Arthur W. Allen
Boston, Mass.

SCIENTIFIC SESSION

Wednesday, September 18

9:00 A. M.

1. Chemo-Therapy In Urological Cases
..... J. A. Bowen
Louisville
Discussion opened by D. E. Scott
Lexington
2. Differential Diagnosis of Breast Tumors J. A. Ryan
Covington
Discussion opened by Louis Frank
Louisville
3. Gastroscopy as an Aid in the Diagnosis
of Stomach Disease.. Sam Overstreet
Louisville
Discussion opened by Clark Bailey
Harlan
4. Indication of Surgery and Choice of
Operation in Peptic Ulcers
..... Fred W. Rankin
Lexington
Discussion opened by .. Irvin Abell, Sr.
Louisville

SPECIAL ORDER

Wednesday, September 18

12:00 M.

ORATION IN MEDICINE

The Evolution of Our Knowledge of

Tuberculosis Oscar O. Miller
Louisville

SCIENTIFIC SESSION

Wednesday, September 18

2:00 P. M.

1. Syphilis—Its Modern Management..
..... R. E. Teague
Paducah
Discussion opened by ... F. W. Caudill
Louisville
2. Hoarseness, an Important Symptom,
..... Shelton Watkins
Louisville
Discussion opened by .. M. G. Buckles
Louisville
3. Joint Fractures G. Y. Graves
Bowling Green
Discussion opened by .. G. L. Simpson
Greenville
4. Scalenus Anticus Syndrome.....
..... Franklin Jelsma
Louisville
Discussion opened by John Stites
Louisville

ANNUAL SUBSCRIPTION DINNER

Wednesday, September 18

6:30 P. M.

- President's Address Austin Bell
Hopkinsville
- Address: "Management of Patients with
Acute Myocardial Infarction" ...
..... Tinsley R. Harrison
Nashville, Tenn.

SCIENTIFIC SESSION

Thursday, September 19

9:00 A. M.

1. Diabetes—Evaluation of the Various
Insulins C. C. Turner
Glasgow
Discussion opened by Lyne Smith
Louisville
2. The Problem of Drainage Following
Operation in the Bile Passages...
..... J. G. Gaither
Hopkinsville
Discussion opened by .. E. W. Jackson
Paducah
3. Applied Pathology of the Paranasal
Sinuses W. A. Weldon
Glasgow
Discussion opened by ... Samuel Marks
Lexington

4. Vomiting of Early Pregnancy
E. P. Solomon
 Louisville
 Discussion opened by Stanley S. Parks
 Lexington

SCIENTIFIC SESSION

Thursday, September 19

2:00 P. M.

1. Edema—Types and Management ..
L. T. Minish
 Frankfort
 Discussion opened by C. N. Kavanaugh
 Lexington
2. Weight ControlR. N. Holbrook
 Louisville
 Discussion opened byJohn Harvey
 Lexington
3. Early Diagnosis and Treatment in
 NeurosyphilisJ. H. Rompf
 Lexington
 Discussion opened by..Arthur Kasey
 Lakeland
4. The Treatment of Appendiceal Peri-
 tonitis Woolfolk Barrow
 Lexington
 Discussion opened by E. Dargan Smith
 Owensboro

COUNTY SOCIETY REPORTS

Henry: At a meeting of the Henry County Medical Society, held at the office of the Secretary on June 13, 1940, at 7:30 p. m. the following physicians were present:

Maurice Bell, A. P. Dowden, W. P. McKee, G. E. McNunn, Eminence; W. F. Carter, O. P. Goodwin, E. J. Brashear, Pleasureville; O. P. Chapman, Port Royal; J. L. Hartman, Campbellsville; L. E. Elliott, Lockport, and W. W. Leslie and Owen Carroll, New Castle.

The Kentucky Law governing Serological Blood Test for Syphilis on Pregnant Women, was discussed and all doctors present, wholeheartedly agreed to comply with same. The question arose as to what procedure to take in case a pregnant woman refuses to have the test made and it was agreed that the only thing to do in this case, is to take blood sample from the cord at the time of confinement, or just to state on the birth certificate why it was not done.

On motion of Dr. Carroll, Hunt B. Jones, of Eminence, was admitted to membership in the Henry County Medical Society.

On motion of Dr. Leslie, the next meeting of the Henry County Medical Society will be held on the second Thursday in September.

W. P. McKee, Eminence, read a paper on Gonorrhoea in the Male. This subject was very interesting to all doctors present, as it is one disease in which it is so hard to secure the co-

operation of the patient as it is usually impossible to force the patient to return for treatment. This subject was discussed by every physician present and especially was Sulfanilamide considered from most every angle for the treatment of the disease, with a consensus of opinion that from 80 to 100 grains should be given daily for the first three or four days.

The meeting was well attended and every one took a thorough interest in it.

A. P. Dowden, Eminence, will furnish a paper for the September meeting.

Wassermann containers were distributed by the Secretary to the doctors who were without them.

Meeting adjourned until September.

OWEN CARROLL, Secretary.

Jefferson: The June program for the Jefferson County Medical Society was carried out as follows:

Case Report: Peptic Ulcer with Unusual Developments, Morris Flexner, Harry W. Weeter and M. J. Henry. Surgical Treatment of Peptic Ulcer, Joseph M. Frehling. Discussion of the Sprue Syndrome, by Morris H. Thompson.

This is the last regular meeting until September. The dinner meeting at the Pendennis Club on June 17th was well attended and Dr. Wolman, of the Children's Hospital, Philadelphia, was the guest speaker.

W. B. TROUTMAN, Secretary.

Mercer: The Mercer County Medical Society was host to the Sixth and Seventh Councilor Districts at Beaumont Inn, Harrodsburg, June 27th with the following program:

A Short Review of Tularemia, G. E. Lowery, Harrodsburg; The Proper Evaluation of Gastric Symptoms, F. M. Stites, Louisville; The Use of Radiation in Skin Neoplasms and Inflammations, D. Y. Keith; Intestinal Obstruction, Charles A. Vance, and Sulfapyridine in the Treatment of Pneumonia in Children, by Lee Palmer, Louisville.

J. T. PRICE, Secretary.

The modern concept of diagnosis of pulmonary tuberculosis implies a decision as to whether or not the patient has pulmonary tuberculous lesion; whether the lesion is healed, inactive, or active and an attempt to determine to what phase the lesion belongs, whether primary or in the stage of dissemination. Even the total absence of physical signs does not exclude the presence of a tuberculous lesion, healed or active. Advanced disease may be diagnosed by physical examinations, but they cannot be relied upon for the diagnosis of progressive early disease. P. O. Kayne, M.D., Pulmon. Tuber., Oxford Med. Publication, 1939.



Austin Belf

PRESIDENT KENTUCKY STATE MEDICAL ASSOCIATION. 1940

KENTUCKY MEDICAL JOURNAL

BEING THE JOURNAL OF THE KENTUCKY STATE MEDICAL ASSOCIATION

Published Under the Auspices of the Council

VOL. 38, No. 9

BOWLING GREEN, KY.

SEPTEMBER, 1940

THE PRESIDENT

AUSTIN BELL, M. D.
Hopkinsville

Born in Christian County, Dr. Bell attended the county schools and later spent two and one-half years in South-Western Presbyterian University, Clarksville, Tennessee, now Southern Presbyterian University of Memphis. His medical education was received at the University of Virginia from which he was graduated with the degree of M. D. in 1894. He did post-graduate work in New York at the Polyclinic, United States Marine, Seaside, and Lying-In Hospitals, New York City. Served as volunteer in the Medical Corps of the United States Army in both Spanish American and World Wars. Has practiced his profession in Christian County since completing his internship and post-graduate services. For the last thirty-one years he has resided and practiced in Hopkinsville.

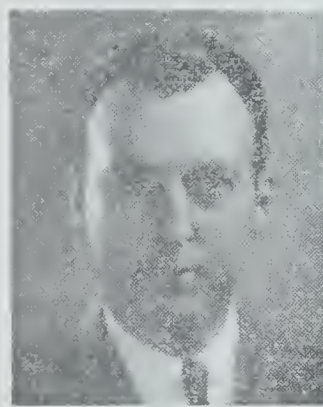
MEET OUR VICE PRESIDENTS



GEORGE H. GREGORY, M. D.
Versailles

Born in Breckenridge County, Dr. Gregory received his preliminary education in the county schools. Later on he entered the University of Kentucky, receiving from that institution degree of A. B. in 1921, and his M. A. degree in 1923. His medical education was received at the University of Cincinnati School of Medicine from which he graduated with a degree of M. D. in 1928. His internship was served at the Booth Memorial Hospital, Covington, and Good Samaritan Hospital,

Lexington. He began his practice of medicine in Versailles in 1929 where he still practices and resides.



A. CLAYTON McCARTY, M. D.
Louisville

Dr. McCarty was born in Henderson, January 5, 1897, and was graduated from the University of Louisville in 1915; he received his A. B. degree from the University of Pennsylvania in 1917, and his M. D. degree from the same university in 1923, and served his internship at the Pennsylvania Hospital, Philadelphia, and the City Hospital, Louisville. He is a member of several Greek fraternities and a Fellow in the American College of Physicians, and was Clinical Assistant, Department of Medicine, University of Louisville, in 1926, and Lecturer Medical Economics, 1927. He is on the staff of St. Joseph, Norton, Kentucky, Louisville City, and Kings Daughters Hospitals. He has had several articles and papers published in State and National Medical Society Journals.



ELDON W. STONE, M. D.
Bowling Green

Native of Warren County, Dr. Stone was graduated from Ogden College, Bowling Green, 1910; received his M. D. degree

from Vanderbilt University School of Medicine in 1915, and served his internship at St. Vincent's Hospital, Indianapolis. He served with the British Expeditionary Forces in France and Belgium in 1917-1919. Has been in active practice of medicine and surgery in Bowling Green since April, 1919.

SECRETARY



A. T. McCORMACK, M. D.
Louisville

Secretary, Kentucky State Medical Association; Editor, Kentucky Medical Journal; President Southern Medical Association; and State Commissioner of Health.

Past-President, American Public Health Association; Delegate to the American Medical Association; Past-President, State and Provincial Health Authorities of North America.

THE TREASURER



A. W. DAVIS, M. D.
Madisonville

A. W. Davis, M. D., Madisonville, was graduated from Louisville Medical College in 1898. After serving internship in Louisville, he attended clinics in London, Edinburgh and Dublin. Returning to America he enrolled in the New York Post-Graduate College and later attended post-graduate clinics at Tulane University. He was Captain, Medical Corps of the United States Army, from February 1918 to May 1919, and is now Lieutenant Colonel, Medical Corps Reserve.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION



VIRGIL EARL SIMPSON, M. D.
Louisville

Dr. Virgil E. Simpson, a native of Jefferson County, Kentucky, was born in 1875, and graduated from the University of Louisville with a degree of A. B. in 1897 and a degree of M. D. in 1900. He did post-graduate work at Johns Hopkins University, University of Toronto, Cleveland Clinic, Harvard University and the Massachusetts General Hospital. He taught in the public schools of Kentucky from 1894 to 1896 and in the College of Liberal Arts, University of Louisville, 1906-1907, and has been a member of the faculty of the University of Louisville School of Medicine since 1903, occupying at present the Chair of Clinical Professor of Medicine.

Dr. Simpson holds memberships in the American Heart Association, American Association for the Study and Prevention of Goiter, Southern Medical Association, American College of Physicians, Jefferson County Medical Society, Kentucky State Medical Association and the American Medical Association. He has been a frequent contributor to various medical journals throughout the United States.



J. DUFFY HANCOCK, M. D.
Louisville

Dr. Hancock was born November 1, 1898, Jeffersonville, Indiana. Graduated from the University of Louisville in 1921, with degree of B. S. and M. D. Surgical Intern, New York Post-Graduate Hospital, 1921-1923.

He is Associate Clinical Professor of Surgery, University of Louisville; Lecturer Nazareth College, Louisville; Visiting Surgeon, Louisville City Hospital and St. Joseph's Infirmary; member and Past-President, Jefferson County Medical Society; Past Vice-President of Kentucky State Medical Society; member of Southern Medical Association, and Southern Surgical Association; Fellow of American College of Surgeons; Past-President, Jefferson County Board of Health; Chairman State Executive Committee, American Society for the Control of Cancer; Member of Founders Group of American Board of Surgery; member of Louisville Society of Medicine and Louisville Surgical Society; Woodcock Medalist, University of Louisville 1917; member of Alpha Omega Alpha and Phi Chi Medical Fraternities.

ORATOR IN SURGERY

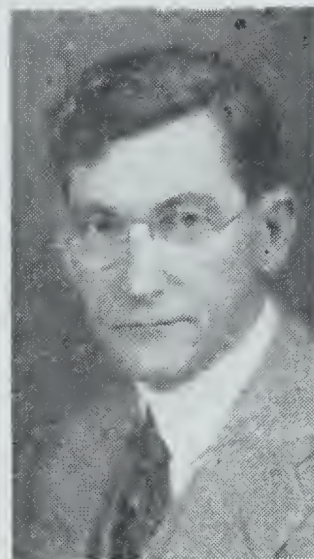


ALLEN E. GRIMES, M. D.
Lexington

Dr. Grimes was born October 16, 1902 at Vicksburg, Mississippi. Attended Southwestern University, Memphis, from 1920 to 1922 and the University of Idaho, from

1922 to 1923; received his B. S. degree and M. D. degree in 1927 from Northwestern University; interned at St. Luke's Hospital, Chicago, from December 1, 1927 to July 1, 1929. Fellow in Surgery, Mayo Clinic, from 1929 to 1933. Associate in Surgery at St. Joseph's Hospital and the Good Samaritan Hospital, and Consultant in Surgery, Julius Marks Sanatorium, Lexington. Member of the Alumni Association of the Mayo Foundation. Member of State Medical Association, Southeastern Surgical Congress, American College of Surgeons and American Board of Surgery. Author of several scientific articles in various medical journals.

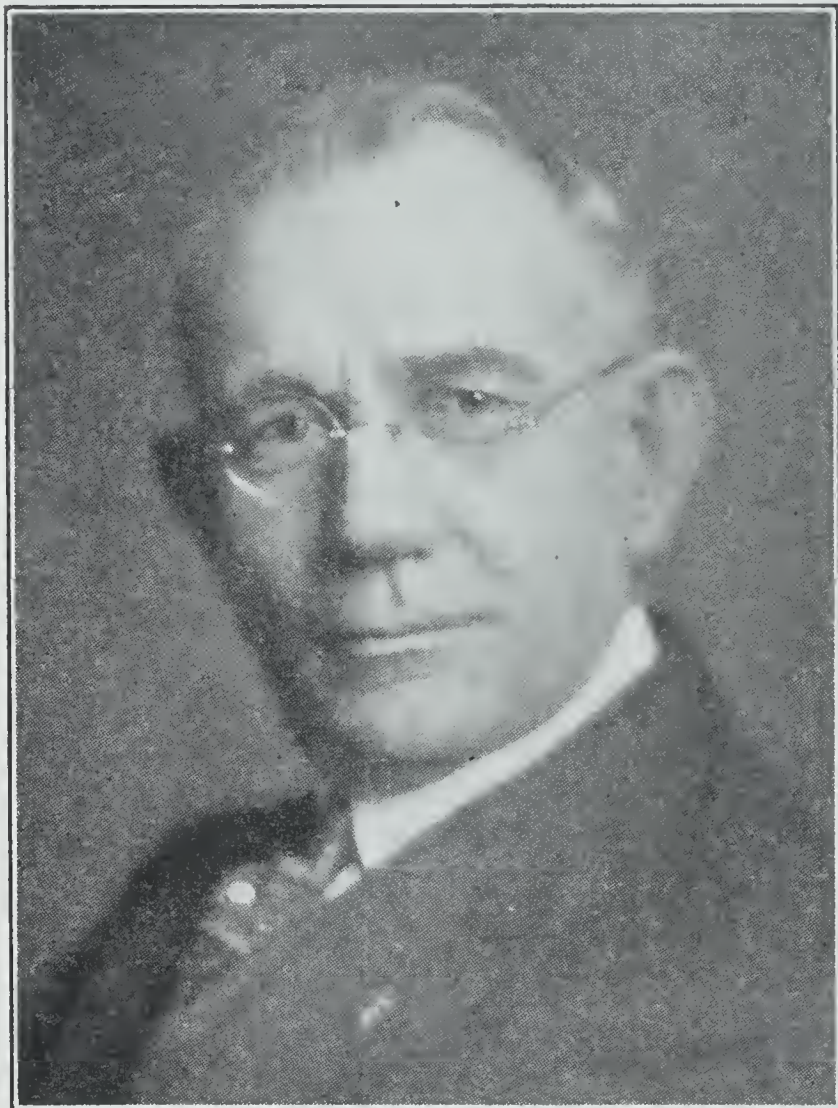
ORATOR IN MEDICINE



OSCAR OSWALD MILLER, M. D.
Louisville

Dr. Oscar O. Miller was born August 17, 1884 in Sidney, Australia. He received his M. D. degree from the University of Louisville in 1911, and was the Physician in Charge of Hazelwood Sanatorium, Louisville, from 1911 to 1912, and again from 1915 to 1918. He was Medical Director of Waverly Hills Sanatorium, Louisville, from 1918 to 1931, Medical Director of Waverly Hills Clinic, and Field Work 1918 to present time. He is Associate Clinical Professor of Medicine and Director of the Tuberculosis Clinic. Assistant in Medicine University of Louisville School of Medicine 1921-23; Clinical Instructor in Medicine, University of Louisville Medical School 1923-1924; Assistant Clinical Professor, University of Louisville Medical School 1924-1933; Associate Clinical Professor of Medicine, University of Louisville Medical School 1933 to present time.

THE COUNCILORS FIRST DISTRICT



VAN ALBERT STILLEY, M. D.
Benton

Dr. Stilley was born in Concord, Callo-way County, May 19, 1866. Educated at Benton Seminary, 1880-1884; Evansville Commercial College 1885; Medical Department University of Louisville, 1888-90; Post-graduate University of Louisville 1895. Chicago Polyclinic 1907. Secretary Marshall County Medical Society 1890-1905; President in 1906. Health Officer Marshall County, 1893-1924. Member of Draft Board 1917-1918. Official Examiner Military C. M. T. C. Member State Board of Health 1924-27; Councilor Kentucky Medical Association, 1922-39. Chairman, Committee of Public Instruction and Legislation, Kentucky State Medical Association; Director of Public Health 1927. Member of Marshall County Medical Society, Southwestern Kentucky Medical Association, Secretary 1901-1907; President 1908; member Kentucky Medical Association, Southern Medical Association, American Medical Association, Knight Templar, Shriner.

SECOND DISTRICT

Dr. Griffith oculist and aurist, was born in Owensboro, September 19, 1867. Attended Tulane University where he received his degree in medicine in 1888; Postgraduate work at Royal Westminster Ophthalmic Hospital, London, England;

Central London Throat Hospital, London; among first in Kentucky to receive degree of Fellowship in American College of Surgeons. Surgeon in Third Regular Kentucky State Guards, 1889-90; appointed Acting Surgeon in Influenza epidemic, 1918-1919, by Surgeon General Rupert Blue; one of the five Kentucky physicians appointed by President Wilson as head of doctors and nurses during the World War. President Kentucky State Medical Association, 1907-1909, only man elected twice; Ohio Valley Medical Society, 1910, and



D. M. GRIFFITH, M. D.
Owensboro

Councilor since 1911; Organizer and Vice-President Owensboro Training School for Nurses; one of organizers and Past-President Kentucky Eye, Ear, Nose and Throat Society; Past-President, Owensboro Chamber of Commerce; one of organizers and Vice-President, Daviess County Historical and Museum Association, Director of Transylvania Society since its organization. Member Daviess County, Kentucky, Southern and American Medical Associations; American College of Surgery, Democrat, Mason, Elk.

Built own office building in 1889 and still has office in it.

Author: Dysmenorrhea Cured by Treating Nose, published in 1914 in *Seman's Internationales Centralblatt fuer Laryngologie*, Berlin, Germany.

THIRD DISTRICT



C. C. TURNER, M. D.
Glasgow

Dr. Turner was born on a farm near Gamaliel, Monroe County. Educated in the county schools and received a literary degree from Transylvania College, and his M. D. degree in 1910 from the University of Louisville. Has taken post-graduate work, Cook County, Illinois, Johns Hopkins, Polyclinic of New York, Mayo Clinic. Was interne at Louisville City Hospital in 1914 and 1915, and Radiologist at Community Hospital, Glasgow, since 1930. Is President of Barren County Board of Health, Barren County Library Association; Past President Barren County Medical Society and elected Councilor of Third District in 1932 to fill unexpired term of Dr. C. C. Howard. Re-elected Councilor in 1936. Past Vice-President and Orator in Medicine, Kentucky State Medical Association. Past President of staff of Community Hospital, Glasgow; member of Kentucky State and American Medical Associations and Radiography Society of North America. First Lieutenant, Medical Corps, Base Hospital No. 59, serving 10 months over seas during World War. His hobbies are golf and gardening.

FOURTH DISTRICT

Dr. Greenwell was born in Balltown, Nelson County, November 27, 1873 and

received his early education in the public schools of Balltown, and his B. A. degree from Cecilia College in Hardin County, and his Master's Degree from the same college in 1895. He matriculated in the Louisville Hospital College of Medicine where he won the degree of M. D. in 1900, and at once located in New Haven where he has practiced his profession continuously until the present time. Dr. Greenwell has given his support to the Democratic party, is a Roman Catholic, and belongs to the New Haven Council, No 2203 Knights of Columbus. He is a member of the Nelson County Medical Society and



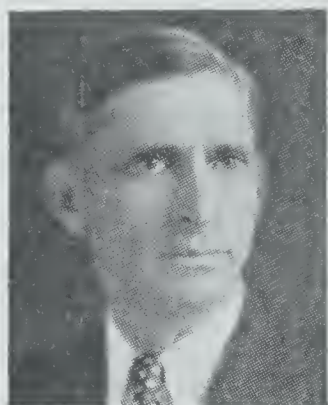
J. I. GREENWELL, M. D.
New Haven

the Kentucky State Medical Society and is serving on the County Board of Health. He is also a member of the American Medical Association. To Dr. and Mrs. Greenwell have been born twelve children.

Dr. Greenwell is a Director and Vice-President of the Bank of New Haven and has shown a deep interest in everything affecting the prosperity and progress of his community. Kind and sympathetic in disposition, he has the faculty of inspiring confidence in his patients and to an unusual degree he has been successful in the practice of his profession and is regarded as one of the leading physicians of Nelson County.

FIFTH DISTRICT

Dr. J. B. Lukins was born in Fleming County, November 4, 1881 the son of J. P. and Mary Lukins. He received his education in the Fleming County schools and the Flemingsburg Graded High School and his medical education at the Hospital College of Medicine, Louisville, from which he was graduated in 1906. He received an appointment as intern at the Louisville City Hospital where he served for one year. Immediately upon completion of this service, he located in Louisville. He



J. B. LUKINS, M. D.
Louisville

took post-graduate work at the Mayo Clinic, and was resident in surgery at Bellevue Hospital, New York, in 1919. He has been a member of the faculty at the Medical College of the University of Louisville since his graduation, and since 1937 has been Associate Professor of Gynecology and Abdominal Surgery. He served as First Lieutenant in the United States Army during the first World War through 1918 and to April, 1919. He is a Fellow of the American College of Surgeons and the Southeastern Surgical Congress, and a member of the Jefferson County Medical Society, the Kentucky State Medical Association, the Southern Medical Association, and the American Medical Association. He is a past president of Kentucky State Medical Association.

SIXTH DISTRICT

Dr. Atkinson was born in Campbells-ville, March 7, 1896 and is the son of J. L. Atkinson, M. D. and Lena Reno Atkinson. He received his B. S. degree from Georgetown College in 1917 and graduated from the Jefferson Medical College, Philadelphia, in 1921, with an M. D. degree. Elected to Council at Harlan, 1934 to fill the unexpired term of R. C. McChord, and was re-elected at Paducah in 1936.

He is a member of Taylor County Medical Society; Kentucky State Medical Association, American Medical Association,



W. B. ATKINSON, M. D.
Campbellsville

Southern Medical Society, Muldraugh Hill Medical Society, and Southeastern Surgical Congress. He is local surgeon for the Louisville and Nashville Railroad Company.

SEVENTH DISTRICT

Dr. Virgil Gibney Kinnaird, was born at Lancaster, October 15, 1890. He received his education at the Lancaster graded and high schools, and attended Centre College one year. He spent two years at the University of Louisville Medical School, and transferred to Jefferson Medical College, from which he received his degree of Medicine in 1913. He served two years internship at Kings County Hospital, Brooklyn, New York. Went overseas with Base Hospital No. 40. Entered service at Fort Riley, Kansas, July 1917, as First Lieuten-



VIRGIL G. KINNAIRD, M. D.
Lancaster

ant; discharged Major, Medical Corps, July 1919. Dr. Kinnaird returned to Lancaster and entered the general practice of medicine and surgery. He was elected to the Council for the Seventh District in 1922.

EIGHTH DISTRICT



LUTHER BACH, M. D.
Bellevue

Born in Breathitt County, October 19, 1891, Dr. Bach was educated in the public schools and at Berea College. Taught in the public schools prior to entering medical school. Entered the University of Louisville Medical Department in 1911, from which institution he received his M. D. degree in 1915. Internship at Good Samaritan Hospital, Lexington, 1915 to 1916. Associated with his brother in Bach Hospital, Jackson, after internship until his entry into war, August, 1917. Commissioned First Lieutenant and served from August, 1917 to May, 1919, 10 months in France. After discharged from service became associated with his brother again in Bach Hospital, Jackson, until January, 1926. Entered Civil Service and was sent to Panama Canal for one year. While in Panama, lost his health, and returned to Jackson and served as Health Officer during the Eastern Kentucky flood. Came to Campbell County in 1928 where he has been in active practice since. Since 1928 he has been in active practice in Newport and Bellevue.

Dr. Bach has served as President, Vice-President and Secretary of the Campbell-Kenton County Medical Society. President and Secretary of the Licking Valley Medical Society; President of the Hospital Service Association of Northern Kentucky since its organization in 1938. His post-graduate work is as follows: Internal Medicine and Roentgenology, Chicago Post-graduate Medical School in 1921; Pediatrics, Children's Free Hospital, Louisville, 1934 to 1936. General Courses, University of Louisville; Cardiology, Harvard University, August and September, 1935, and the same course again in August, 1937; Cardio-Renal Disease, Northwestern Uni-

versity, March, 1939; Hematology, Ohio State University, Columbus, March, 1940. He is a member of the Campbell-Kenton, Licking Valley, Kentucky State Medical Association, Southern Medical, American Medical Association, and Associate member of the American College of Physicians. He was elected Councilor, Eighth District, Kentucky State Medical Association and Delegate to the National Pharmacopeal Association, September 14, 1939.

NINTH DISTRICT



PROCTOR SPARKS, M. D.
Ashland

Dr. Sparks was born June 7, 1890 at Martha, son of Judge Meredith B. Sparks and Alice Sparks. He received his early educational training at Blaine, Kentucky, and at the Louisa Normal Institute, at Louisa.

He was married June 10, 1908 to Mary Gambill and later had two daughters, Joy and Irene. He taught one year at Martha, after which he studied at Draughon's Business College, Knoxville, Tennessee, and then served four years as cashier at the Bank of Blaine.

At this time he was able to satisfy his burning desire to study medicine, and went to the Louisville Medical College where he received his M. D. degree in 1917. He has done post-graduate work at Chicago, Harvard and Louisville in Pediatrics and Anesthesia. Dr. Sparks has been engaged in the general practice of medicine in Ashland for the past seventeen years. Here he has served as Chairman of the Advisory Board of the Salvation Army, Director of the First Federal Savings and Loan Association, and Alderman on the Ashland City Council. He is a Mason, Shriner, and belongs to the I.O.O.F., and the Ashland Lions Club.

TENTH DISTRICT

Dr. C. A. Vance was born in Lexington, March 23, 1880; attended public schools and Hamilton College; graduated with an A. B. degree Transylvania College, 1900; received M. A. degree in 1903 also from



CHARLES A. VANCE, M. D.
Chairman of the Council
Lexington

Transylvania; M.D. degree from the University of Louisville Medical Department. Interned St. Joseph's Infirmary 1903 and 1904. Substitute interne at the New York Hospital, Hudson Street Hospital, Mount Sinai Hospital, New York City, and St. Johns' Riverside Hospital, Yonkers, New York, June 1904 to January, 1905. Hudson Street Hospital, New York, January, 1905 to July, 1906; St. John's Guild Children's Hospital, Staten Island and Manhattan Maternity Hospital, New York City until January, 1907. Began practice in Lexington January, 1907.

He was Captain in the Medical Corps, U. S. Army from September, until after Christmas, 1918, stationed at Camp Greenleaf, Chickamauga Park, Georgia. He has confined his practice to general surgery since July 1, 1919. He is consulting surgeon for St. Joseph Hospital, Lexington; Consulting Surgeon for Veterans Administration Hospital, Lexington, and attending Surgeon, Good Samaritan Hospital, Lexington. He is a member of the Fayette County Medical Society; Kentucky State Medical Association; American Medical Association; Southern Medical Association; Fellow of the Southern Surgical Association; Fellow of the American College of Surgeons; Fellow of the American So-

ciety of Traumatic Surgery, and certificate from American Board of Surgery. He was elected Councilor for the Tenth District at the Owensboro meeting in 1925 and Chairman of the Council at the Lexington meeting, 1931. Since graduating he has written 45 or 50 articles on various surgical subjects, the last one being read last December at the meeting of the Southern Surgical Association at White Sulphur Springs, West Virginia, subject: "Surgery In Hemophilia With Report of Cases."

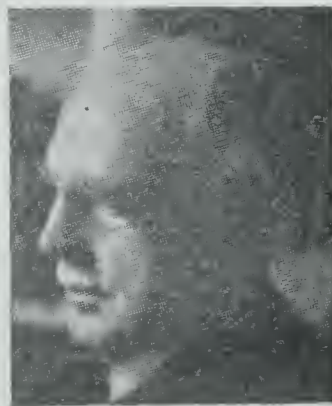
ELEVENTH DISTRICT



HARRY KING BUTTERMORE, M. D.
Liggett

Dr. Buttermore was born at Connellsville, Pennsylvania, February 18, 1893. He was graduated from the University of Louisville School of Medicine in 1907, and served as intern and Resident Surgeon at Braddock General Hospital, Braddock, Pennsylvania; did post-graduate work at the University of Pittsburgh, and is a Past President of the Harlan County Medical Society and Cumberland Valley Medical Society. He has served as Councilor of the Eleventh District since 1933.

OUR GUEST SPEAKERS



NATHAN BRISTOL VAN ETEN, M. D.
New York

Dr. Van Etten is President of the American Medical Association and for years has been a leader in organized medicine in his state and country. A former Editor of the New York State Journal of Medicine and former Speaker of the House of

Delegates of the American Medical Association; he has official connection with practically all the leading hospitals in New York City. The medical societies of which he is a member are too numerous to mention in such a short biographical sketch.

In addition to being a highly successful practitioner, Dr. Van Etten is a brilliant leader and forceful speaker. The Kentucky State Medical Association is fortunate in having as Guest Speaker one so exceptionally gifted with both tongue and pen.



ARTHUR W. ALLEN, M. D.
Boston, Mass.

A native of Kentucky, Dr. Allen received his academic education at Georgetown College, from which he graduated with a degree of A. B. in 1910. Later he entered Johns Hopkins University School of Medicine, receiving a degree of M. D. from that institution in 1913. Since 1915 Dr. Allen

has specialized in surgery, and is a member of the leading surgical associations of America. During the World War he served as Captain in the Medical Corps of the United States Army, participated in the Champaign-Marne offensive, Aisne-Marne offensive, St. Mihiel, Argonne and served with the Army of Occupation in Germany after the Armistice. In 1936 he was Lecturer in Surgery at the Harvard Medical School.



TINSLEY RANDOLPH HARRISON, M. D.
Nashville, Tennessee

Dr. Harrison is Associate Professor of Medicine at Vanderbilt University, Nashville. He received his B. A. degree from University of Michigan in 1919 and his M. D. degree from Johns Hopkins University, School of Medicine, in 1922. Became Instructor in Medicine at Vanderbilt University School of Medicine in 1925; Assistant Professor of Medicine in 1928 and was promoted to Associate Professor in Medicine in 1932.



TROTting TRACK, LEXINGTON

PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

THE LEXINGTON MEETING

Lexington is in the heart of a most picturesque touring country, "The Blue Grass" which takes in not one county or two, but a large section of eastern and central Kentucky. One may drive over hundreds of miles of paved roads to many places of entrancing scenic beauty, and to spots of historic, romantic and legendary interest. After visiting in Lexington, Ashland, the home of Henry Clay, Clay's tomb, the home of Mary Todd, wife of Abraham Lincoln, scenes of LaFayette's visit to Lexington, and other places of great interest, there are many enjoyable day or less-than-day trips by motorbus, interurban or train. Persons visiting the Blue Grass section should not fail to see

single-span covered wooden bridge in the world, and the stately mansions of anti-bellum days.

Many visitors who love good horses are attracted to Lexington each year to the trotting and running races. Lexington has the finest trotting track in the world and offers the largest purses. It has the oldest running track in America, and many classics have been run on this course. The Government maintains its horse-purchasing department for the Eastern Zone at Lexington, and there is a crack cavalry troop stationed here.

PLACES OF INTEREST

In Lexington and Fayette County are many places of historic and other interest for the physician and his family. In the



HOTEL LAFAYETTE, LEXINGTON

the highly developed thoroughbred horse-breeding farms, the beautiful country estates of some of the nation's wealthiest men; Dix River hydro-electric dam; the old village of Shakertown; Boonesboro, fort of Daniel Boone; the State Capital at Frankfort, and Boone's burial place on the bluffs overlooking the Kentucky River. Then there are Herrington Lake, one of America's greatest fishing places; High Bridge; Berea, the famous Kentucky mountain school; the palisades of the Kentucky River; Boone Tunnel; the century-old Wernwag Bridge, the longest

City of Lexington are Transylvania College, the oldest woman college in America, and the University of Kentucky. Ashland, the Home of Henry Clay, is on the Richmond road, just outside the city limits. A few miles out, on the Bryan Station Road, is the Bryan Station Memorial, commemorating the heroic defense by the early pioneers of the fort at that point. Within a radius of a few miles of the City Hall are several of the most famous stock breeding farms in America. Among these are Faraway Farm, home of one of the world's most famous race horses, Man o'

War, and Idle Hour Farm, owned by Colonel E. R. Bradley on which have been bred, raised and trained four winners of the Kentucky Derby. Walnut Hall Farm, 7 miles out on the Newtown Road, is the largest trotting horse breeding establishment in the world. Keenland Race Track is six miles out on the Versailles Pike and the Kentucky Trotting Track is a short distance out on South Broadway. Other places of interest are the United States Public Health Hospital, the only institution of its kind in the world; and the U. S. Veterans Hospital, outstanding for its occupational therapy in connection with mental and nervous disorders; the Julius Marks Sanitarium, the High Oak Sanitarium, the Good Samaritan Hospital and St. Joseph's Hospital; and the Iroquois Hunt and Polo Club.

CIVIC LUNCHEON CLUBS

Lexington has a number of civic luncheon clubs. Among these are the Rotary Club, which meets at noon on Thursdays at the Phoenix Hotel; the Kiwanis Club, which meets at noon on Tuesdays at the LaFayette Hotel, the Optimist Club meeting at noon on Fridays at the LaFayette Hotel; the Lions Club, meeting at noon Wednesdays at the LaFayette Hotel; and the Co-operative Club, meeting Mondays at noon at the LaFayette Hotel. The U. C. T., the Altrusa, the Pyramid Clubs, and the American Legion also have regular dinner or luncheon meetings.

ROUND TABLE DISCUSSION

The annual meeting at Lexington will afford the physicians in Kentucky an unusual opportunity to hear some of the State's best surgeons on the subject of Delayed and Non-Union Fractures, on Wednesday, September 18th, from 8 A. M. to 9 A. M. A round table discussion on this subject will be conducted by W. E. Brown, Lexington, W. Barnett Owen, Louisville, Richard Hudson, Louisville and A. Arnold Griswold, Louisville.

It is requested that those who contemplate joining in the discussion send in their questions before the meeting in order that the questions may be considered and codified in advance. Only in this way can the best results be obtained. Of course, additional questions may be asked at the time of the discussion. Questions should be sent immediately to Dr. R. Arnold Griswold, in care of the Louisville City Hospital, Louisville.

HOTEL RESERVATIONS

Lexington has ample hotel accommodations for all the physicians and their families. It is always wise, however, to secure hotel reservations in advance and in so doing get your choice of rooms. Write immediately to Dr. C. C. Garr, Chairman of the Hotel Committee, Lexington, for your reservations.

The headquarters of the Association will be at the Phoenix Hotel; headquarters for the Ladies Auxiliary will be at the LaFayette Hotel. The two hotels are only half a block apart. Rooms may be reserved at either, just as you desire.

ENTERTAINMENT IN LEXINGTON

On Tuesday evening at 6:30 P. M. the members of the Association and their wives will be the dinner guests of Dr. John Davis Reichard, Medical Officer in Charge, Narcotic Farm, Lexington, and after the dinner in the dining room of the Farm, Dr. Nathan Van Etten, New York, Dr. Arthur W. Allen, Boston and Dr. John Davis Reichard, will speak.

On Wednesday evening, 6:30 P. M. at the Phoenix Hotel, will be held the annual subscription dinner after which we will have the President's Address by Austin Bell, Hopkinsville, and an address by Dr. Tinsley R. Harrison, Nashville, Tennessee.

The Ladies Auxiliary will have their headquarters at the LaFayette Hotel, and their printed program will contain the date and place for the many entertainments the ladies of Lexington have arranged for them.

GOLF AT LEXINGTON

Those who enjoy the royal and ancient game of Golf may bring along their clubs and play at the beautiful Lexington Country Club during the meeting. The Country Club is three miles from the city and open to all members of the Association who desire to play. Everything has been arranged for their comfort and they can play at their own convenience during their stay in Lexington. Many physicians have played this course in the past and know how beautiful it is and a pleasure to play upon.

Dr. H. G. Herring, the Chairman, has secured fourteen very carefully selected prizes that will be worth competing for, and they will be awarded as follows: low net, low gross, blind bogey, most pars, most birdies, most fours, most fives, low score, longest drive and high score.

The ladies are cordially invited to par-

ticipate in the tournament and three prizes will be given to low net, low gross and high score. The tournament is played in the handicap basis and it is imperative that those who participate secure their club handicap from their local Pros. Dr. Herring urges everyone to come and play upon the beautiful course and make it the best tournament ever held. The physicians will enjoy this tournament as there will be no green fees attached.

REFRESHER COURSES IN PSYCHIATRY

In the August JOURNAL, we called attention of the profession to the Refresher Courses in Psychiatry which will be held at the Central State Hospital at Lakeland, September 23 to October 5, inclusive. This clinic is sponsored by the Committee on Education of the American Psychiatric Association and the Rockefeller Foundation.

This is a very splendid opportunity for contacts with some of the leading teachers of important problems of mental health.

In cooperation with Dr. J. G. Wilson, Director of the Division of Hospitals and Mental Hygiene, of the State Department of Welfare, arrangements have been completed for the continuation of the intensive work in mental health in Carroll, Gallatin, Trimble, Madison and Mason Counties. County Societies in other counties in the State have indicated such interest in this splendid work which is being accomplished in these counties by these mental health clinics that this work will be extended as rapidly as possible where it is desired by the profession. Dr. A. R. Kasey, Assistant Director of the Division

of Hospital and Mental Hygiene, will be in charge of this work and will devote practically all of his time to it. This is the beginning of a campaign in Kentucky to improve mental health and reduce the cost of caring for cases that can be kept at home, and that can be adjusted to their environment instead of incarcerated in an institution. This is another step in the care of psychiatric cases of tremendous importance which was inaugurated by Governor A. B. Chandler, and that has been very successfully continued by Governor Keen Johnson.

The profession will always be grateful to Dr. L. M. Rogers of the United States Public Health Service for the splendid work he did in the development of this phase of mental health work, which is now to be continued by the State.

HELP OUR ADVERTISERS

The Kentucky State Medical Journal needs two more pages of advertising to make it self-supporting, and this can readily be secured if the doctors in Kentucky will help. They can assist considerably by writing for literature and samples to the various companies offered through their advertisement in our JOURNAL each month. This will please our present advertisers and establish the JOURNAL as a better advertising medium. When advertisers include offers of samples or literature or photographs in their copy, they make a check on the reader's interest in the JOURNAL, and as many letters as they can get regarding their advertisement, will enhance the value of these pages. In this issue there are many samples, literature, and brochures given for the asking.



TOBACCO IN WAREHOUSES

INTERNATIONAL MEDICAL ASSEMBLY

The International Medical Assembly of the Inter-State Postgraduate Medical Association of North America will meet in the Public Auditorium, Cleveland, Ohio, October 14-18, 1940.

Among the members on the program will be America's greatest surgeons and internists. Every member of the medical profession of Kentucky is urged to be present and bring their wives and daughters with them, as a very excellent program has been arranged for their entertainment. There will be excellent scientific and commercial exhibits and all this for the simple registration fee of \$5.00. More detailed part of the program will be found in the advertising section of this month's JOURNAL. A printed program will be mailed to every member of the Kentucky State Medical Association prior to the meeting.

OSLER AT OLD BLOCKLEY



"Osler at Old Blockley," a painting in oil by Dean Cornwell, the well known Kentucky artist, was unveiled at the dedication at the Osler Memorial Building on the grounds of the Philadelphia General Hospital this past June and was later exhibited at the American Medical Association convention in New York.

The painting depicts one of Osler's outstanding contributions to medicine, namely, bringing medical students to the bedside of the patient for clinical study. In the painting Osler is shown at the side of an elderly patient on the hospital grounds. Surrounding Osler and the patient are internes who have stopped with him as they were on their way to the autopsy house to observe one of his famous post mortems. This autopsy house, now

the only Osler Memorial Building in the United States, is shown in the background. This memorial was made possible by a grant from John Wyeth & Brother.

Colored reproductions of "Osler at Old Blockley," suitable for framing, may be obtained free by addressing requests to Kentucky Medical Journal.

Write for your copy as soon as possible as the supply is limited.

STATE APPROVED SERODIAGNOSTIC LABORATORIES

The following laboratories, applying for evaluation in the second serodiagnostic survey for efficiency of performance, as to specificity and sensitivity, of tests for syphilis, have been approved by the State Commissioner of Health:

Arthur Bach Laboratory, 210 Security Trust Building, Lexington
Coffman-Sherman Laboratory, 115 E. Fourth Street, Owensboro
Clinical Laboratory, Owensboro
Graves-Gilbert Clinic Laboratory, 1109 State Street, Bowling Green
Harlan Diagnostic Laboratory, Harlan
Hayswood Hospital Laboratory, Maysville
Inland Steel Company Hospital Laboratory, Wheelwright
C. B. Johnson Laboratory, Russell
Irving F. Kanner Laboratory, 208 Security Trust Building, Lexington
M. M. Lawrence Laboratory, Jamestown
A. B. Loveman, Laboratory, Heyburn Building, Louisville
Massie Memorial Hospital Laboratory, Paris
Mayfield Hospital Laboratory, Mayfield
Physicians Laboratory, Francis Building, Louisville

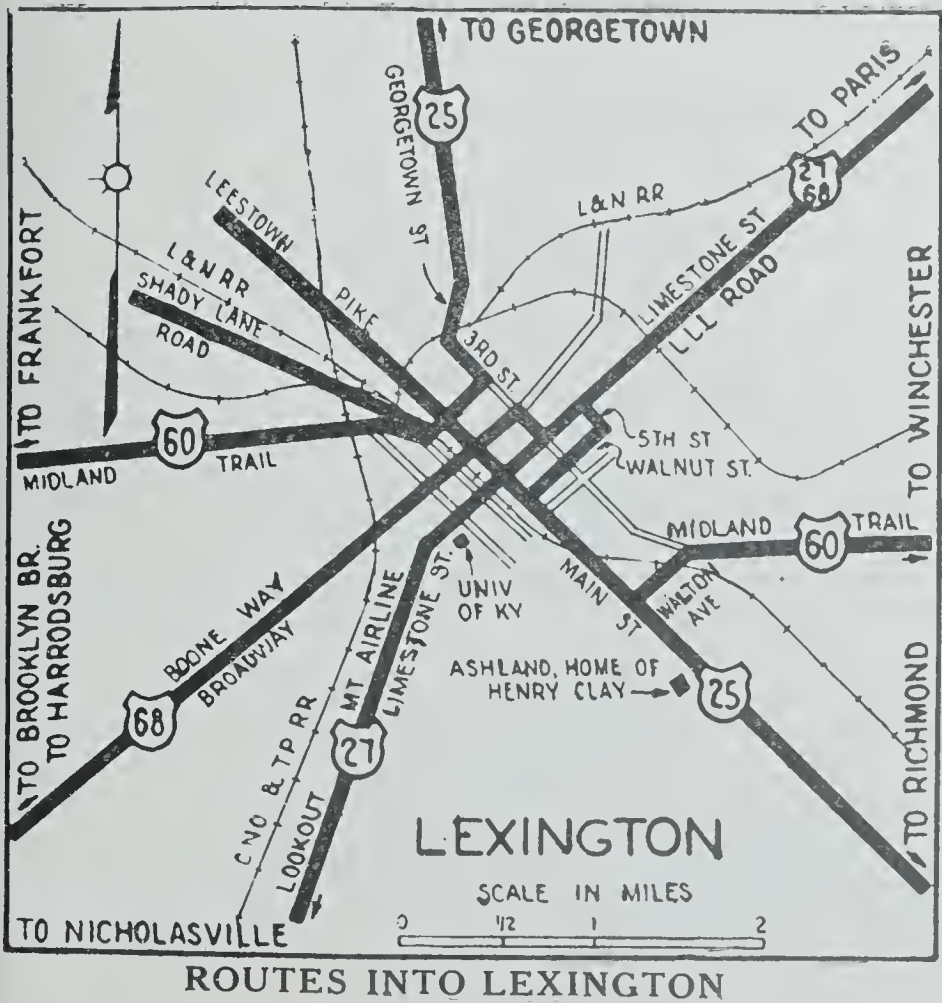
Laboratories applying for evaluation in the first serodiagnostic survey for efficiency of performance, as to specificity and sensitivity of tests for syphilis and approved by the State Commissioner of Health were:

Dowden & Dowden Laboratory, Brown Building, Louisville
Wm. Kenney Laboratory, Fifth Street, Paris
Kentucky Baptist Hospital Laboratory, Louisville
Lexington Clinic Laboratory, 100 North Upper Street, Lexington
Louisville City Health Department Laboratory, City Hospital, Louisville
Louisville Research Laboratory, Francis Building, Louisville
Martin & McNeill Laboratory, Brown Building, Louisville
Wm. Mason Memorial Hospital Labora-

tory, Murray
Muhlenberg Community Hospital Labora-
tory, Greenville
Norton Infirmary Laboratory, Norton In-
firmary, Louisville
Paintsville Hospital Laboratory, Paints-
ville
Riverside Hospital Laboratory, Riverside
Hospital, Paducah
State Department of Health Laboratory,
620 South Third Street, Louisville
Harry M. Weeter Clinical Laboratory,
Heyburn Building, Louisville

A third survey will begin during the month of September. Any laboratory performing serological tests for syphilis, and wishing to be approved in accordance with the requirements of the Prenatal and Pre-marital Laws, should apply for evaluation to the State Commissioner of Health of Kentucky. The survey is conducted according to the regulations of the U. S. Public Health service. It is hoped that all private laboratories in the State, which are interested in performing serologic tests for syphilis, will take advantage of this opportunity for evaluation. Such an evaluation is of inestimable value to the laboratories themselves, to the physicians using them, to the State Department of Health and to the public.

Every laboratory, every physician using laboratories and every technician employed in a laboratory should want to know that the tests performed are up to the proper standard. Only in this way can any laboratory be certain that it is not either condemning innocent people as syphilitics or allowing syphilitic persons to pass as non-syphilitics.



OFFICIAL ANNOUNCEMENTS
PRELIMINARY PROGRAM

KENTUCKY STATE MEDICAL ASSOCIATION
LEXINGTON

September 16, 17, 18, 19, 1940
Tuesday, September 17
9:00 A. M.

- Call to Order by the President
Invocation—Reverend A. W. Fortune,
Pastor, Central Christian Church,
Lexington
Address of Welcome.....E. B. Bradley
Lexington
ResponseD. M. Griffith
Owenboro
Installation of President
Report of Committee on Arrangements,
C. A. Vance, Chairman.

SCIENTIFIC SESSION

Tuesday, September 17
10:00 A. M.

CASE REPORTS

1. Tumor of Small Intestine.....
..... Herman Mahaffey
Louisville
Discussion opened by.....
..... Malcom Thompson
Louisville
2. Parathyroid Tumor, R. Arnold Griswold
Louisville
Discussion opened by..Harper Richey
Louisville
3. Adrenal Tumor....Joseph E. Hamilton
Louisville
4. Some Behavior Problems in Infancy
and Early Childhood...W. F. Lamb
Russellville
Discussion opened by W. W. Nicholson
Louisville
5. Epidemiology of Diphtheria.....
.....C. D. Cawood
Lexington
Discussion opened by....James Bruce
Louisville
6. Vitamins—Their Use in Children..
..... T. J. Marshall
Paducah
Discussion opened by..Harry Andrews
Louisville

SPECIAL ORDER

Tuesday, September 17
12:00 M.

ORATION IN SURGERY

Lung Abscess Allen E. Grimes
Lexington

SCIENTIFIC SESSION

Tuesday, September 17
2:00 P. M.

1. Appendicitis in Children.....
..... James Pritchett
Louisville

Discussion opened byChas. Vance
Lexington

2. Obscure Fevers H. V. Noland
Louisville

Discussion opened by..Virgil Simpson
Louisville

3. Uterine Bleeding.....M. J. Henry
Louisville

Discussion opened by.. C. W. Hibbitt
Louisville

4. An Evaluation of the Present Status
of Male Hormone Therapy.....
..... James R. Hendon
Louisville

Discussion opened by Clayton McCarty
Louisville

Tuesday, September 17
6:00 P. M.

Dinner—Narcotic Farm

An American Health Program.....
.....Nathan B. Van Etten
New York

Surgical Consideration of the Gall Blad-
der and Bile Ducts..Arthur W. Allen
Boston, Mass.

SCIENTIFIC SESSION

Wednesday, September 18
8:00 A. M.

1. Round Table Discussion of Delayed
and Non-Union of Fractures...
.....W. E. Brown
Lexington

W. Barnett Owen
Richard Hudson
R. Arnold Griswold
Louisville

2. Chemo-Therapy In Urological Cases
..... J. A. Bowen
Louisville

Discussion opened byD. E. Scott
Lexington

3. Differential Diagnosis of Breast Tu-
mors J. A. Ryan
Covington

Discussion opened by....Louis Frank
Louisville

4. Gastroscopy as an Aid in the Diagnosis
of Stomach Disease..Sam Overstreet
Louisville

Discussion opened by....Clark Bailey
Harlan

5. Indication of Surgery and Choice of
Operation in Peptic Ulcers
..... Fred W. Rankin
Lexington

Discussion opened by....Irvin Abell
Louisville

SPECIAL ORDER

Wednesday, September 18
12:00 M.

ORATION IN MEDICINE

The Evolution of Our Knowledge of
Tuberculosis Oscar O. Miller
Louisville

SCIENTIFIC SESSION

Wednesday, September 18
2:00 P. M.

1. Syphilis—Its Modern Management..
.....R. E. Teague
Paducah

Discussion opened by...F. W. Caudill
Louisville

2. Hoarseness, an Important Symptom,
.....Shelton Watkins
Louisville

Discussion opened by..M. G. Buckles
Louisville

3. Joint FracturesG. Y. Graves
Bowling Green

Discussion opened by..G. L. Simpson
Greenville

4. Scalenus Anticus Syndrome.....
.....Franklin Jelsma
Louisville

Discussion opened byJohn Stites
Louisville

ANNUAL SUBSCRIPTION DINNER

Wednesday, September 18
6:30 P. M.

President's Address Austin Bell
Hopkinsville

Address: "Management of Patients with
Acute Myocardial Infarction" ...
.....Tinsley R. Harrison
Nashville, Tenn.

SCIENTIFIC SESSION

Thursday, September 19
9:00 A. M.

1. Diabetes—Evaluation of the Various
InsulinsC. C. Turner
Glasgow

Discussion opened byLyne Smith
Louisville

2. The Problem of Drainage Following
Operation in the Bile Passages...

.....J. G. Gaither
Hopkinsville

Discussion opened by ..E. W. Jackson
Paducah

3. Applied Pathology of the Paranasal
Sinuses

W. A. Weldon
Glasgow

Discussion opened by...Samuel Marks
Lexington

4. Vomiting of Early Pregnancy

.....E. P. Solomon
Louisville

Discussion opened by Stanley S. Parks
Lexington

SCIENTIFIC SESSION

Thursday, September 19

2:00 P. M.

1. Edema—Types and Management ..

.....L. T. Minish
Frankfort

Discussion opened by C. N. Kavanaugh
Lexington

2. Weight Control

R. N. Holbrook
Louisville

Discussion opened byJohn Harvey
Lexington

3. Early Diagnosis and Treatment in
Neurosyphilis

J. H. Rompf
Lexington

Discussion opened by..Arthur Kasey
Lakeland

4. The Treatment of Appendiceal Peri-
tonitis

Woolfolk Barrow
Lexington

Discussion opened by E. Dargan Smith
Owensboro

PEDIATRIC SECTION

The Pediatric Section will be held in the Phoenix Hotel, Lexington, Monday, September 16th at 10 A. M. All the members in attendance are cordially invited to attend and take part in the proceedings and discussions. The following program has been arranged by the Chairman, Philip F. Barbour.

MONDAY, SEPTEMBER 16

10:00 A. M. Lead Poisoning, A. J. Alexander, M. D., Lexington.

10:30 A. M. Tuberculosis in Childhood, J. Keller Mack, M. D., Louisville.

11:00 A. M. Recognition and Management of Some Complications of

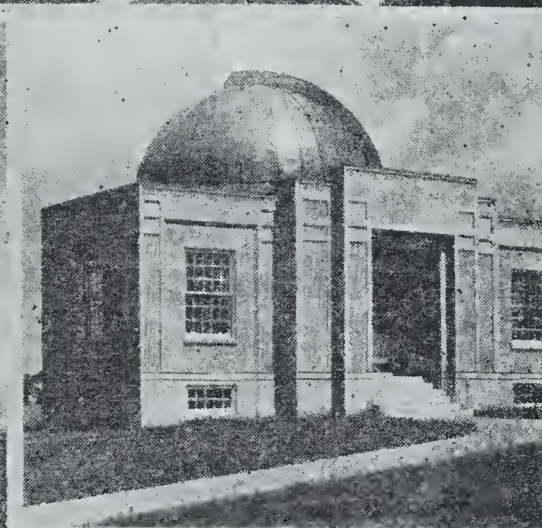
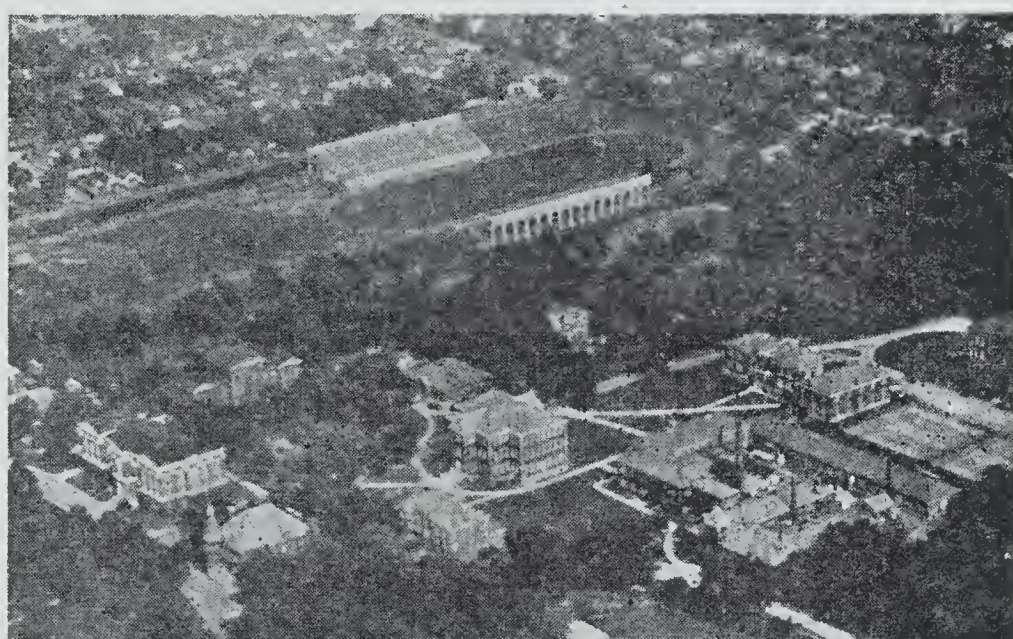
Acute Nephritis, J. Martin Harris, M. D., Louisville.

11:30 A. M. After Care of Rheumatic Heart Disease, Woodford B. Troutman, M. D., Louisville.

Lunch—Phoenix Hotel

2:00 P. M. Round Table, Meningitis, W. W. Nicholson, M. D., Louisville.

3:00 P. M. Clinic, James W. Bruce, M. D., Louisville.



SCENES AT UNIVERSITY OF KENTUCKY

LEXINGTON MEETING OF THE KENTUCKY SOCIETY OF MEDICAL TECHNOLOGISTS

The Kentucky Society of Medical Technologists will hold their third annual meeting in Lexington on September 15 and 16, 1940, at the Phoenix Hotel.

This organization is incorporated under the laws of the State of Kentucky and also holds a Charter of Affiliation with the American Society of Medical Technologists. Although only those holding certificates from the Registry of Medical Technologists of the American Society of Clinical Pathologists are eligible for membership, all those interested in the field of laboratory medicine are welcome to attend the meeting as guests. The program is as follows:

September 15, 1940, from 1:00 p. m. to 4:00 p. m., a tour has been arranged to the United States Public Health Service Hospital Narcotic Farm, and the Veterans Administration Facility.

SEPTEMBER 16, 1940—PHOENIX HOTEL

- 8:45 A. M. Registration
- 9:00 A. M. Business Session, election of officers
- 10:00 A. M. Routine Procedures in a Diagnostician's Laboratory, Carolyn Weitzel, B. S., M. T., Lyndon
- 11:00 A. M. Examination of Laboratories for Approval under the Requirements of the Pre-marital and Prenatal Laws, John R. Pate, Director of the Sero-diagnostic Survey, State Department of Health of Kentucky, Louisville
- 12:00-1:30 Luncheon, Rose Room, Phoenix Hotel. After luncheon speaker: E. S. Maxwell, M. D., Lexington
- 1:45 P. M. The Clinical Laboratory as an Aid to Surgery, J. Farra Van Meter, M. D., Lexington
- 2:30 P. M. Identification and Classification of the Streptococci, Morris Scherago, D. V. M., Head of the Department of Bacteriology and Medical Technology, University of Kentucky, Lexington
- 3:15 P. M. The Blood Bank, Sister Mary Antonia, M. T., St. Joseph Hospital, Lexington

COMMITTEES FOR LEXINGTON MEETING

CHARLES A. VANCE, General Chairman

ARRANGEMENTS COMMITTEE

E. B. Bradley, Chairman
C. N. Kavanaugh
E. S. Maxwell
D. B. Harding
C. C. Barrett

RECEPTION COMMITTEE:

Farra Van Meter, Chairman
Arnolds Combs
A. E. Grimes
G. H. Wilson
S. S. Parks

FINANCE COMMITTEE:

S. B. Marks, Chairman
E. L. Moore
L. E. Hurt
T. L. Adams
W. H. Pennington

ENTERTAINMENT COMMITTEE

W. D. Reddish, Chairman
F. M. Massie
A. B. Barrett
R. C. Blount
C. C. Johnston

PUBLICITY COMMITTEE:

Charles D. Cawood, Chairman
R. C. Alley
Carl H. Fortune
E. J. Murray
R. G. Elliott

HOTELS COMMITTEE:

C. C. Garr, Chairman
T. M. Marks
F. C. Thomas
W. T. Maxson
Woolfolk Barrow

GOLF COMMITTEE:

Harry Herring, Chairman
John Harvey
Wm. Brown
C. G. McLean
J. L. Keyes

WOMEN PHYSICIANS COMMITTEE:

Josephine Hunt, Chairman
Emily Warfield
Caroline Scott
Gladys Smithwick

WOMAN'S AUXILIARY COMMITTEE:

Mrs. Thomas M. Marks, Chairman
Mrs. J. Farra Van Meter, Co-Chairman

SCIENTIFIC EXHIBITS

Rockwood Room—Ground Floor

Phoenix Hotel

1. Improvised Appliances.
W. B. Atkinson, Campbellsville.
2. The Incidence and Treatment of Thrombophlebitis of the Lower Extremities.
Woolfolk Barrow, Lexington.
3. Color Photography in Gross Pathology and Dermatology.
A. B. Loveman, M. L. Barnes, Louisville.
4. Management of Skin Cancer.
Jesshill Love, Louisville.
5. Sterility, Breech Deliveries.
Dept. of Obstetrics and Gynecology, Medical School, U. of L.
Chas. W. Hibbitt, Chm., Louisville.
6. Medical Problems of the Pine Mountain Hospital.
Preston J. Van Kolken,
Pine Mountain Settlement School.
7. Improvement in Organization and Therapy.
Dept. of Welfare, Div. of Hospitals and Mental Hygiene
Commonwealth of Kentucky
J. G. Wilson, Director, Frankfort.
8. Malignancies of the Gastro-Intestinal Tract with Diagnostic X-rays, Photographed Specimens and Operative Results.
L. Wallace Frank, Louisville.
9. Supravital Stains in Differential Diagnosis of Diseases of Blood and Blood-Making Organs, Kentucky Baptist Hospital.
John D. Allen, Marion Beard, Louisville.
10. Physical Therapy.
David E. Jones, Louisville.
11. The Frontiers of Municipal Public Health.
Department of Health
City of Louisville,
Hugh N. Leavell, Director; Gradie Rowntree, Ass't. Director, Louisville.
12. Body Sectioning by X-ray.
Keith, Keith and Shiflett, Louisville.
13. The Treatment and Study of Drug Addiction.
U. S. Public Health Service Hospital
J. D. Reichard, Medical Officer in Charge, Lexington.
14. The Correlation of Radiography and Clinical Study.
John L. Dixon, Owensboro.
15. Mental Hygiene Studies.
(U. S. Public Health Service).
16. Demonstrating Technique in Taking of Blood Specimens.
Fayette County Health Department and Laboratories State Board of Health
C. C. Barrett, Lexington.
Bureau of County Health Work,
State Board of Health of Kentucky
P. E. Blackerby, Louisville.
17. Female Infant Urine Collector.
Robert Cohen, Louisville.
18. Surgery Through Three Decades.
J. G. Sherrill, Louisville.
19. Brain Tumors.
Dept. of Pathology, Medical School, U. of L.
A. J. Miller, Louisville.
20. The Effect of Distention on Blood Flow Through the Intestines.
Department of Physiology, School of Medicine, U. of L.
H. C. Lawson, Louisville.
21. Unrecognized, Ambulatory Pulmonary Tuberculosis—Field Clinic.
John B. Floyd, Richmond.
22. Congenital Pyloric Stenosis. A Study of One Hundred Cases.
Frank P. Strickler, Louisville.
23. Tumors of the Kidney.
Lytle Atherton, Curry Martin, Louisville.
24. First Aid. Fractures of the Upper Extremities.
By the members of the Kentucky Fracture Committee of the American College of Surgeons
R. T. Hudson, Chairman, Louisville.
25. Anesthesiology.
Committee on Anesthetics, K.S.M.A.
Douglas Sanders, Chm., Louisville.
26. Rupture of Intervertebral Discs with Herniation of the Nucleus Pulposus.
R. Glen Spurling, E. G. Grantham, Louisville.
27. Bromide Intoxication.
Medical School, U. of L.
Louisville City Hospital

Central State Hospital
Staff Committee.

28. X-Ray Studies of Diseases of the Renal Pelvis.
Owsley Grant, Robert Lich, Louisville.
29. Carbohydrate Metabolism in Rheumatoid Arthritis.
K. R. Andrew, Lexington.
30. Laboratory Technic.
Kentucky Society of Medical Technologists.
Sister Mary Antonia, Chairman, Lexington.
31. Bright's Disease.
Frederick G. Speidel, Louisville.
32. Laboratory Exhibits, State Board of Health.
L. H. South, Louisville.
33. Osmotic Drainage in Abdominal Infection.
E. Dargan Smith, Owensboro.
34. Child Spacing.
Kentucky Advisory Committee of the Kentucky Birth Control League.
35. Panel Discussion on Diseases of Blood and Blood-Making Organs.
8:00 A. M., Wednesday, September 18, 1940. Written questions may be mailed to John W. Scott, Lexington.

OFFICIAL CALL

THE KENTUCKY STATE MEDICAL ASSOCIATION
TO BE HELD IN THE PHOENIX HOTEL
LEXINGTON, KENTUCKY

To the officers and members of the Component County Societies of the Kentucky State Medical Association:

The W. C. Sneed Memorial Meeting of the Kentucky State Medical Association will convene in the Phoenix Hotel, Lexington, Monday, Tuesday, Wednesday and Thursday, September 16, 17, 18, 19, 1940.

THE HOUSE OF DELEGATES

The House of Delegates of the Kentucky State Medical Association will convene in the Auditorium of the Phoenix Hotel at 2:00 P. M. and at 7:30 P. M. on Monday, September 16, 1940.

FIRST SESSION

The First General Session, which constitutes the opening exercises of the scientific function of the Association, will be

held in the Auditorium of the Phoenix Hotel, Tuesday, September 17th at 9:00 A. M.

THE COUNCIL

The Council will convene in the Parlor of the Phoenix Hotel, Monday, September 16th at 10:30 A. M.

The Registration Department will be open on the mezzanine from 10:00 A. M. to 5:00 P. M. on Monday, September 16th; from 8:30 A. M. to 6:00 P. M. Tuesday and Wednesday, September 17th and 18th; and from 8:30 A. M. to 12:00 Noon on Thursday, September 19, 1940.

COUNCILOR DISTRICTS

FIRST DISTRICT

V. A. Stilley, Benton, Councilor	
Ballard	Fulton
Caldwell	Graves
Calloway	Hickman
Carlisle	Livingston
Crittenden	
	Lyon
	McCracken
	Marshall
	Trigg

SECOND DISTRICT

D. M. Griffith, Owensboro, Councilor	
Daviess	Hopkins
Hancock	McLean
Henderson	Muhlenberg
	Ohio
	Union
	Webster

THIRD DISTRICT

C. C. Turner, Glasgow, Councilor	
Allen	Cumberland
Barren	Logan
Butler	Metcalf
Christian	Monroe
	Simpson
	Todd
	Warren-Edmonson

FOURTH DISTRICT

J. I. Greenwell, New Haven, Councilor	
Breckinridge	Hardin
Bullitt	Hart
Grayson	Larue
	Meade
	Nelson
	Spencer

FIFTH DISTRICT

J. B. Lukins, Louisville, Councilor	
Carroll	Henry
Franklin	Jefferson
Gallatin	Oldham
	Owen
	Shelby
	Trimble

SIXTH DISTRICT

W. B. Atkinson, Campbellsville, Councilor	
Adair	Green
Anderson	Marion
Boyle	Mercer
	Taylor
	Washington

SEVENTH DISTRICT

V. G. Kinnaird, Lancaster, Councilor	
Casey	Lincoln
Clinton	McCreary
Garrard	Pulaski
	Rockcastle
	Russell
	Wayne

EIGHTH DISTRICT

Luther Bach, Bellevue, Councilor	
Boone	Fleming
Bracken-Pendleton	Grant
Campbell-Kenton	Harrison
	Mason
	Nicholas
	Robertson

NINTH DISTRICT

Froctor	Sparks, Ashland, Councilor	
Boyd	Greenup	Magoffin
Carter	Johnson	Martin
Elliott	Lawrence	Fike
Floyd	Lewis	

TENTH DISTRICT

O. A. Vance, Lexington, Councilor	
Bath	Jessamine
Bourbon	Lee
Breathitt	Madison
Clark	Menifee
Estill	Montgomery
Fayette	Morgan
	Owsley
	Powell
	Rowan
	Scott
	Wolfe
	Woodford

ELEVENTH DISTRICT

H. K. Buttermore, Liggett, Councilor	
Bell	Knott
Clay	Knox
Harlan	Laurel
Jackson	Leslie
	Whitley

CONSTITUTION AND BY LAWS OF
THE KENTUCKY STATE MEDICAL
ASSOCIATION ADOPTED AT PA-
DUCAH IN 1902 AS AMENDED
CONSTITUTION

ARTICLE I. NAME OF THE ASSOCIATION

The name and title of this organization shall be the Kentucky State Medical Association.

ARTICLE II. PURPOSE OF THE ASSOCIATION

The purpose of the Association shall be to federate and bring into compact organization the entire medical profession of the State of Kentucky and to unite with similar associations in other states to form the American Medical Association, with a view to the extension of medical knowledge, and to the advancement of medical science, to the elevation of the standard of medical education and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians, and to the guarding and fostering of their material interest and to the enlightenment and direction of public opinion in regard to the great problem of state medicine, so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III. COMPONENT SOCIETIES

Component societies shall consist of those county medical societies which hold charters from this Association.

ARTICLE IV. COMPOSITION OF THE
ASSOCIATION

Section 1. This Association shall consist of Members, Delegates and Guests.

Section 2. MEMBERS. The members of this Association shall be the members of the component county medical societies.

Section 3. DELEGATES. Delegates shall be those members who are elected in accordance with this Constitution and By-laws to represent their respective component county societies in the House of Delegates of this Association.

Section 4. GUESTS. Any distinguished physician not a resident of this State may become a guest during any Annual Session upon invitation of the Association or its Council, and shall be accorded the privilege of participating in all of the scientific work of that session.

ARTICLE V. HOUSE OF DELEGATES

The House of Delegates shall be the leg-

islative and business body of the Association, and shall consist of (1) Delegates elected by the component county societies, (2) *ex-officio*, the officers of the association as defined in Article VIII, Section 1, of this Constitution and (3) the five immediate past presidents.

ARTICLE VI. SECTIONS AND DISTRICT
SOCIETIES

The House of Delegates may provide for a division of the scientific work of the Association into appropriate Sections and for the organization of such Councilor District Societies as will promote the best interest of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE VII. SESSIONS AND MEETINGS

Section 1. The Association shall hold an Annual Session, during which there shall be held daily not less than two General Meetings, which shall be open to all registered members, delegates and guests.

Section 2. The time and place for holding each annual session shall be fixed by the House of Delegates.

ARTICLE VIII. OFFICERS

Section 1. The officers of this Association shall be a President, three Vice-Presidents, a Secretary, a Treasurer, and eleven Councilors.

Section 2. The President and Vice-Presidents shall be elected for a term of one year. The Secretary, Treasurer and Councilors shall be elected for terms of five years each; the Councilors being divided into classes so that two shall be elected each year. All these officers shall serve until their successors are elected and installed.

Section 3. The officers of the Association shall be elected by the House of Delegates on the morning of the last day of the Annual Session but no Delegates shall be eligible to any office named in the preceding section, except that of Councilor and no person shall be elected to any such office who is not in attendance upon the Annual Session, and who has not been a member of the Association for the past two years.

ARTICLE IX. FUNDS AND EXPENSES

Funds for meeting the expenses of the Association shall be arranged for by the House of Delegates by an equal per capita assessment upon each county society to be fixed by the House of Delegates, by voluntary contribution, and from the profits of its publication. Funds may be appropriated by the House of Delegates to defray the

expenses of the Annual Session, for publication and for such other purposes as will promote the welfare of the Association and profession.

ARTICLE X. REFERENDUM

The General Meeting of the Association may, by a two-thirds vote, order a general referendum upon any question pending before the House of Delegates, and the House of Delegates may, by a similar vote of its own members, or after a like vote of the General Meeting, submit any such question to the membership of the Association for a final vote; and if the persons voting shall comprise a majority of all the members, a majority of such vote shall determine the question and be binding upon the House of Delegates.

ARTICLE XI. THE SEAL

The Association shall have a common Seal with power to break, change or renew the same at pleasure.

ARTICLE XII. AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at that Annual Session, provided that such amendment shall have been presented in open meeting at the Previous Annual Session, and that it shall have been sent officially to each component county society at least two months before the session at which final action is to be taken.

BY-LAWS

CHAPTER I. MEMBERSHIP

Section 1. All members of the Component County Societies shall be privileged to attend all meetings and take part in the proceedings of the Annual Session, and shall be eligible to any office within the gift of the Association. PROVIDED, that no physician may become a member of any county society unless he signs and keeps inviolate the following pledge:

I hereby promise upon my honor as a gentleman that I will not so long as I am a member of the Kentucky State Medical Association practice division of fees in any form; neither by collecting fees from others referring patients to me, nor by permitting them to collect fees from me, nor will I make joint fees with physicians or surgeons referring patients to me for operation or consultation; neither will I in any way, directly or indirectly, compensate anyone referring patients to me nor will I utilize any man as an assistant as a subterfuge for this purpose.

Section 2. The name of a physician upon the properly certified roster of members,

or list of delegates, of a chartered county society which has paid its annual assessment, shall be *prima facie* evidence of his right to register at the Annual Session in the respective bodies of this Association.

Section 3. No persons who are under sentence or suspension or expulsion from any component society of this Association, or whose name has been dropped from its rolls of membership shall be entitled to any of the rights or benefits of this Association, nor its proceedings until such time as he has been relieved of such liability.

Section 4. Each member in attendance at the Annual Session shall enter his name on the registration book indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of the society, he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member or delegate shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

CHAPTER II. ANNUAL AND SPECIAL SESSION OF THE ASSOCIATION

Section 1. The Association shall hold an annual session, meeting every third year in the city of Louisville, and the other two years at some point in the State fixed at the preceding annual session.

CHAPTER III. GENERAL MEETING

Section 1. The General Meeting shall include all registered members, delegates, and guests, who shall have equal rights to participate in the proceedings and discussions, and except guests, to vote on pending questions. Each General Meeting shall be presided over by the President or in his absence or disability or upon his request, by one of the Vice-Presidents. Before it, at such time and place as may have been arranged, shall be delivered the annual address of the President, and the annual orations and the entire time of the sessions as far as may be, shall be devoted to papers and discussions relating to scientific medicine.

Section 2. The General Meeting shall have authority to create committees or commissions for scientific investigation of special interest and importance to the profession and public, and to receive and dispose of reports of the same; but any expense in connection therewith must first be approved by the House of Delegates.

Section 3. Except by special vote, the order of exercises, papers and discussions as set forth in the official program shall be followed from day to day until it has been completed.

Section 4. No address or paper before the Association except those of the President and orators shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject.

Section 5. All papers read before the Association shall be its property. Each paper shall be deposited with the Secretary when read and if this is not done it shall not be published.

CHAPTER IV. HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet annually at the time and place of the Annual Session of the Association and shall so fix its hours of meeting as not to conflict with the first General Meeting of the Association, or with the meeting held for the address of the President and the annual orations and so as to give delegates an opportunity to attend the other scientific proceedings and discussions so far as is consistent with their duties. But if the business interest of the association and profession require, it may meet in advance or remain in session after the final adjournment of the General Meeting.

Section 2. Each component county society shall be entitled to send to the House of Delegates each year one delegate for every twenty-five members, and one for each major fraction thereof, but each county society holding a charter from the Association, which has made its annual report and paid its assessments as provided in this Constitution and By-Laws shall be entitled to one delegate. In case the regularly elected delegate or alternate is unable to attend the annual meeting of the Association, the President of the county society may in writing appoint an alternate, who shall have the rights and privileges of a delegate.

Section 3. A majority of the registered delegates shall constitute a quorum and all of the meetings of the House of Delegates shall be open to members of the Association.

Section 4. It shall, through its officers, Advisory Council, and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each Annual Session a stepping stone to further ones of higher interest.

Section 5. It shall consider and advise as to material interest of the profession, and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

Section 6. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality and shall continue these efforts until every physician in every county of the State who can be made reputable, has been brought under medical society influence.

Section 7. It shall encourage post-graduate work in medical centers as well as home study and research and shall endeavor to have the results of the same utilized and intelligently discussed in the county societies. With these ends in view, five years after the adoption of the By-Laws, no voluntary paper shall be placed upon the annual program nor be heard in the Association which has not first been read in the county society of which the author is a member.

Section 8. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body, in such manner that not more than one-half of the delegates shall be elected in any one year.

Section 9. It shall upon application provide and issue charters to county societies organized to conform to the spirit of the Constitution and By-Laws.

Section 10. In sparsely settled sections it shall have authority to organize the physicians of two or more counties to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies and these societies, when organized and chartered shall be entitled to all the privileges and representation provided therein for county societies, until such counties may be organized separately.

Section 11. It may divide the counties of the State into Councilor Districts, and, when the best interests of the Association

and profession will be promoted thereby, organize in each district a medical society, to meet midway between the annual sessions of the Association, and members of the chartered county societies and none other shall be members.

When so organized from the presidents of such district societies shall be chosen the Vice-Presidents of this Association and the Presidents of the county societies of the district shall be Vice-Presidents of such district societies.

Section 12. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates and such committees may report to the House of Delegates in person, and may participate in the debate thereon.

Section 13. It shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective.

Section 14. It shall present a summary of its proceedings to the last General Meeting of each Annual Session, and shall publish the same in the Journal.

CHAPTER V. ELECTION OF OFFICERS

Section 1. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect, provided, however, that when there are more than two nominees the nominee receiving the least number of votes on the first ballot shall be dropped and the balloting continue until an election occurs in like manner.

Section 2. Any member known to have directly or indirectly solicited votes for, or sought any office within the gift of this Association shall be ineligible for any office for two years.

Section 3. The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the General Session.

Section 4. Nominations for President shall be called for by counties.

CHAPTER VI. DUTIES OF OFFICERS

Section 1. The President shall preside at all meetings of the Association and of the House of Delegates; shall appoint all committees not otherwise provided for; shall deliver annual address at such time as may be arranged; shall give a deciding vote in case of a tie, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office and so far as practicable, shall visit

by appointment, the various sections of the State and assist the Councilors in building up the county societies and in making their work more practical and useful.

Section 2. The Vice-Presidents shall assist the President in the discharge of his duties. In the event of his death, resignation or removal, the Council shall elect one of the Vice-Presidents to succeed him.

Section 3. The Treasurer shall give bond for the trust imposed in him whenever the House of Delegates shall deem it requisite. He shall demand and receive all funds due the association, together with the bequests and donations. He shall, under the direction of the House of Delegates, sell or lease any real estate belonging to the Association and execute the necessary papers and shall in general subject to such direction have the care and management of the fiscal affairs of the Association. He shall pay money out of the Treasury only on written order of the President, countersigned by the Secretary; he shall subject his accounts to such examinations as the House of Delegates may order, and he shall annually render an account of his doings and of the state of funds in his hands.

The Council shall be the executive body of the House of Delegates and between sessions shall exercise the powers conferred on the House of Delegates by the Constitution and By-Laws.

Section 4. The Secretary, acting with the Committee on Scientific Work, shall prepare and issue the program for and attend all meetings of the Association and of the House of Delegates and he shall keep minutes of their respective proceedings in separate record books. He shall charge upon his books the assessments against each component county society at the end of the fiscal year; he shall collect and make proper credits for the same and perform such other duties as may be assigned him. He shall be custodian of all record books and papers belonging to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the association which come into his hands. He shall provide for the registration of the members and delegates at the Annual Session. He shall keep a card index register of all local practitioners of the State by counties, noting on each his status in relation to his county society and upon request shall transmit a copy of this list to the American Medical Association for publication. In so far as it is in his power he shall use the printed matter, corres-

pondence and influence of his office to aid the Councilors in the organization and improvement of the county societies and in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notify members of meetings, officers of their election, and committees of their appointments and duties. He shall act as secretary of the Committee on Scientific Work. He shall be editor of the KENTUCKY MEDICAL JOURNAL. He shall employ such assistants as may be ordered by the Council or the House of Delegates. He shall annually make a report of his doings to the House of Delegates.

In order that the Secretary may be enabled to give that amount of his time to his duties which will permit of his becoming proficient it is desirable that he shall receive some compensation. The amount of his salary shall be fixed by the House of Delegates.

CHAPTER VII. THE COUNCIL

Section 1. The Council shall hold daily meetings during the annual session of the Association and at such other times as necessity may require, subject to the call of the Chairman or on petition of three councilors. It shall meet on the last day of the Annual Session of the Association for reorganization and for the outlining of the work for the ensuing year. At this meeting it shall elect a chairman and secretary and it shall keep a permanent record of its proceedings. It shall, through its Chairman, make an annual report to the House of Delegates at such time as may be provided, which report shall include an audit of the account of the Secretary and Treasurer and other agents of this Association and shall also specify the character and cost of all the publications of the Association during the year, and the amounts of all other property belonging to the Association, or under its control, with such suggestions as it may deem necessary. In the event of a vacancy in any office the Council may fill the same until the annual election.

Section 2. Each Councilor shall be organizer, peacemaker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the condition of the profession and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his doings, and of the condition of the profession of each county

in his district to each Annual Session of the House of Delegates. The necessary traveling expenses incurred by Councilor in the line of his duties herein imposed may be allowed by the House of Delegates upon a proper itemized statement, but this shall not be construed to include his expense in attending the Annual Session of the Association.

Section 3. Collectively the Council shall be the Board of Censors of the Association. It shall consider all questions involving the right and standing of members, whether in relation to other members, to the component societies or to this Association. All questions on an ethical nature brought before the House of Delegates of the General Meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or a county society upon which appeal is taken from the decision of an individual Councilor. Its decision in all such cases shall be final.

Section 4. The Council shall have the right to communicate the views of the profession and of the Association in regard to health, sanitation and other important matters to the public and the lay press. Such communications shall be officially signed by the chairman and secretary of the Council as such.

Section 5. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions and memoirs of the Association and shall have authority to appoint such assistants to the editors as it deems necessary. It shall manage and conduct the KENTUCKY MEDICAL JOURNAL, which is the organ of the Association, and all money received by the JOURNAL, the Council or any officer of the Association, shall be paid to the Treasurer of the Association on the first of each month.

Section 6. All reports on scientific subjects and all scientific discussions and papers read before the Association shall be referred to the KENTUCKY MEDICAL JOURNAL for publication. The editor, with the consent of the Councilor for the District in which he presides, may curtail or abstract papers or discussions, and the Council may return any paper to its author which it may not consider suitable for publication.

Section 7. All commercial exhibits during the Annual Session shall be within the control and direction of the Council.

CHAPTER VIII. COMMITTEES

Section 1. The standing committees shall

be as follows:

- A Committee on Scientific Work.
- A Committee on Public Relations.
- A Committee on Medical Education.
- A Medico-Legal Committee.

A Committee on Arrangements, and such other committees as may be necessary. Such committees shall be elected by the House of Delegates, unless otherwise provided.

Section 2. The Committee on Scientific Work shall consist of three members of which the President-elect shall be a member and Chairman and the Secretary shall be a member and Secretary and shall determine the character and scope of the scientific proceedings of the Association, subject to the provisions or the instructions of the House of Delegates or of the Association or to the provisions of the Constitution and By-Laws. Thirty days previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented which shall be adhered to by the Association as nearly as practicable.

Section 3. The Committee on Public Relations shall consist of three members and the President and Secretary. Under the direction of the House of Delegates it shall represent the Association in securing and enforcing legislation in the interest of the public health and scientific medicine. It shall keep in touch with the profession and public opinions, shall endeavor to shape legislation so as to secure the best results for the whole people and shall utilize every organized influence in local, state and national affairs and elections. Its work shall be done with dignity becoming a great profession and with that wisdom which will make effective its work and influence. It shall have authority to be heard before the entire Association upon questions of great concern at such times as may be arranged during the annual session.

Section 4. The Committee on Arrangements shall consist of the component society in the territory in which the annual session is to be held. It shall by committees of its own selection, provide suitable accommodations for the meeting places of the Association and of the House of Delegates, and of their respective committees and shall have general charge of all arrangements. Its Chairman shall report an outline of the arrangements to the Secretary for publication in the program and

shall make additional announcements during the session as occasion may require.

Section 5. The Medico-Legal Committee shall consist of three members, one of whom, the Chairman, shall be elected by the Council for five years, and the Secretary and Treasurer shall be the other two members *ex-officio*. This committee shall select and fix the compensation for an attorney, who shall act as General Counsel, and if required, additional local counsel. The Association through this Committee shall defend its members who are in good standing against unjust suits for malpractice.

CHAPTER IX. ASSESSMENTS AND EXPENDITURES

Section 1. The assessment of five dollars per capita on the membership of the component societies is hereby made the annual dues of this Association. The Secretary of each county society shall forward its assessment together with its roster of all officers and members, list of delegates, and list of non-official physicians of the county to the Secretary of this Association on the first day of January in each year.

Section 2. Any county society which fails to pay its assessments, or make the report required, on or before the first day of April in each year, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

Section 3. All motions or resolutions appropriating money shall specify a definite amount or so much thereof as may be necessary for the purpose indicated and must be approved by the Council and House of Delegates.

CHAPTER X. RULES OF CONDUCT

The Principles set forth in the Principles of Ethics of the American Medical Association shall govern the conduct of members in their relation to each other and to the public.

CHAPTER XI. RULES OF ORDER

The deliberations of this Association shall be governed by parliamentary usage as contained in Roberts Rules of Order, unless otherwise determined by a vote of its respective bodies.

CHAPTER XII. COUNTY SOCIETIES

Section 1. All county societies now in affiliation with the State Association or those that may hereafter be organized in this State, which have adopted principles of organization not in conflict with this

Constitution and By-Laws shall upon application to the House of Delegates, receive a charter from and become a component part of this Association.

Section 2. As rapidly as can be done after the adoption of this Constitution and By-Laws, a medical society shall be organized in every county in the State in which no component society exists, and charters shall be issued thereto.

Section 3. Charters shall be issued only upon approval of the House of Delegates and shall be signed by the President and Secretary of this Association. The House of Delegates shall have authority to revoke the charter of any component county society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

Section 4. Only one component medical society shall be chartered in any county. When more than one county society exists friendly overtures and concessions shall be made with the aid of the Councilor of the District if necessary and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken.

Section 2. Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this Association every reputable and legally registered physician who is practicing, or who will agree to practice non-sectarian medicine shall be entitled to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every physician in the county to become a member.

Section 6. Any physician who may feel aggrieved by the action of the society of the county in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council, which upon a majority vote may permit him to become a member of an adjacent county society.

Section 7. In hearing appeals, the Council may admit oral or written evidence as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual councilors in district and county work, effort at conciliation and compromise shall precede all such hearings.

Section 8. When a member in good standing in a component society moves

to another county in the State, his name, upon request, shall be transferred without cost to the roster of the county society into whose jurisdiction he moves.

Section 9. A physician living in or near a county line may hold membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he resides.

Section 10. Each county society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material conditions of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Section 11. Frequent meetings shall be encouraged, and the most attractive programs arranged that are possible. The younger members shall be especially encouraged to do post-graduate and original research work, and to give the society the first benefit of such labors. Official position and other preferences shall be unstintingly given to such members.

Section 12. At the time of the annual election of officers each county society shall elect a delegate or delegates to represent it in the House of Delegates of this Association in the proportion of one delegate to each twenty-five members or major fraction thereof, and the secretary of the society shall send a list of such delegates to the Secretary of this Association at least sixty days before the Annual Session.

Section 13. The Secretary of each county society shall keep a roster of its members and a list of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. He shall furnish an official report containing such information, upon blanks supplied him for the purpose, to the Secretary of this Association, on the first day of January of each year, or as soon thereafter as possible, and at the same time that the dues accruing from the annual assessment are sent in. In keeping such roster the Secretary shall note any change in the personnel of the profession by death, or by removal to or from the county, and in mak-

ing his annual report he shall be certain to account for every physician who has lived in the county during the year.

Section 14. The Secretary of each county society shall report to the Kentucky Medical Journal full minutes of each meeting and forward to it all scientific papers and discussions which the society shall consider worthy of publication.

CHAPTER XIII. AMENDMENTS

These By-Laws may be amended by any Annual Session by a two-thirds vote of all the delegates present at that session, after the amendment has been laid on the table for one day.

CONSTITUTION AND BY-LAWS FOR COUNTY SOCIETIES

Prepared by the Committee on Organization of the American Medical Association of which the late Dr. J. N. McCormack was Chairman

ARTICLE I. NAME AND TITLE OF THE SOCIETY

The name and title of this organization shall be the _____ County Medical Society.

ARTICLE II. PURPOSE OF THE SOCIETY

The purpose of this society shall be to bring into one organization the physicians of _____ County, so that by frequent meetings and full and frank interchange of views they may secure such intelligent unity and harmony in every phase of their labor as will elevate and make effective the opinions of the profession in all scientific, legislative, public health, material and social affairs, to the end that the profession may receive that respect and support within its own ranks and from the community to which its honorable history and great achievements entitle it; and with other county societies to form the _____ State Medical Association, and through it, with other state associations, to form and maintain the American Medical Association.

ARTICLE III. ELIGIBILITY

Every legally registered physician residing and practicing in _____ County who is of good moral and professional standing and who does not support or practice, or claim to practice, any exclusive system of medicine shall be eligible for membership.

ARTICLE IV. MEETINGS

Regular meetings shall be held at such time and place as may be determined by the Society.

Special meetings may be called by the President and shall be called on a written

request of five members. A call for a special meeting shall state the object of such meeting, at which no business except that stated in the call shall be transacted.

ARTICLE V. OFFICERS

The officers of this Society shall consist of a President, Vice-President, Secretary, Treasurer, Delegates and Board of three Censors. These officers, except the Delegates and Board of Censors, shall be elected annually. Delegates shall be elected for two years, and in accordance with the constitution and by-laws of the state association. One member of the Board of Censors shall be elected each year to serve for three years, provided that at the first election after the adoption of this constitution one member of the Board shall be elected for one year, one for two, and one for three years.

ARTICLE VI. FUNDS AND EXPENSES

Funds for meeting the expenses of the Society shall be raised by annual dues, special assessments and voluntary contributions. Funds may be appropriated by vote of the Society for such purposes as will promote its welfare and that of the profession.

ARTICLE VII. CHARTER

The Society shall apply to the council of the state association for a charter at the meeting at which this constitution and by-laws are adopted, or as soon thereafter as practicable, and the charter shall be kept by the Secretary.

ARTICLE VIII. INCORPORATION

The Society shall have authority to appoint a Board of Trustees and to provide for articles of incorporation whenever it may deem this necessary.

ARTICLE IX. AMENDMENTS

The Society may amend any article of this constitution by a two-thirds vote of its members at any regular meeting, provided that such amendment or amendments are not in conflict with the laws and regulations of the state association; provided, also that such amendment shall have been read in open sessions at a previous regular meeting and shall have been sent by mail to each member ten days in advance of the meeting at which final action is to be taken.

BY-LAWS

CHAPTER I. MEMBERSHIP

Section 1. The Society shall judge of the qualification of its members, but as it is the only door to the State Medical Association and to the American Medical Association for physicians within its jurisdiction, every reputed and legally qualified

physician of _____ County who does not support or practice or claim to practice, sectarian medicine shall be eligible to membership.

Section 2. A candidate for membership shall make application in writing and shall state his age, his college and date of graduation, the place in which he has practiced, and the date of registration in this state. The application must be accompanied by the admission fee and must be endorsed by two members of this Society. It shall be referred to the Board of Censors, who shall inquire into the standing of the applicant, assure themselves that he or she is duly registered according to the laws of the state, and report at the next regular meeting of this Society. Election shall be by ballot, and two thirds of the votes of the members present and voting shall be necessary to elect. The application shall be returned to the Secretary, who shall file it for future reference. Applications for membership from rejected candidates shall not be received within six months of such rejection.

Section 3. A physician, accompanying his application with a transfer card from another component county society of this or any state within 60 days of the issuance of said card shall be admitted without fee on a majority vote of the members present, and without the application being referred to the Board of Censors. Such application may be acted on at the meeting at which it is presented on the vote of three fourths of the members present, otherwise it shall lie over until the next regular meeting. No annual dues for the current year shall be charged against such members provided the same have been paid to the Society from which the applicant comes.

Section 4. A physician residing in an immediately adjoining county may become a member of this Society in like manner and on the same terms as a physician living in this county, by permission of the county society of the county in which the applicant lives.

Section 5. A member in good standing who is free from all indebtedness to this Society, and against whom no charges are pending wishing to withdraw, shall be granted a transfer card. This card shall state the date the member associated himself with the Society, the date of issuance of the card, and shall be signed by the President and Secretary. It shall be accompanied with a copy of the application

presented at the time the member joined the Society, for information to the Society to which the member desires to attach himself.

Section 6. All members shall be equally privileged to attend all meetings and take part in the proceedings, and shall be eligible to any office or honor within the gift of the Society so long as they conform to this constitution and by-laws, including the payment of dues. A member who is under sentence of suspension or expulsion shall not be permitted to take part in any of the proceedings or be eligible to any office until relieved of such disability. And, provided further, that none of the privileges of membership shall be extended to any person not a member of this Society except on a majority vote of the Society in regular meeting.

Section 7. A member who is guilty of a criminal offense or gross misconduct either as a physician or as a citizen, or who violates any of the provisions of this constitution and by-laws, shall be liable to censure, suspension or expulsion. Charges against a member must be made in writing and be delivered to the Secretary, who shall immediately furnish a copy to the accused and to the Chairman of the Board of Censors. The Board of Censors shall investigate the charges on their merits, but no action shall be taken by the Board within ten days of the presentation of the charges to the accused, nor before giving the accused and accusers ample opportunity to be heard. The board shall report (1) that the charges are not sustained; or (2) that the charges are sustained and that the accused be (a) censured, (b) suspended for a definite time, (c) expelled. Censure or suspension shall require a two-thirds vote of the members present and voting and a three-fourths vote of those present and voting shall be required to expell a member. No action shall be taken by the Secretary in such cases until at least six weeks have elapsed since filing of the charge. A member suspended for a definite time shall be reinstated at the expiration of the time.

Section 8. Kindly efforts in the interest of peace, conciliation or reformation, so far as possible and expedient, shall precede the filing of formal charges affecting the character or standing of a member, and the accused shall have opportunity to be heard in his own defense in all trials and proceedings of this nature.

Section 9. Members expelled from this

Society for any cause shall be eligible for membership after one year from date of expulsion and on the same terms and in like manner as original applicants.

CHAPTER II. POWERS AND DUTIES

Section 1. This Society shall have general direction of the affairs of the medical profession of the county, and its influence shall be constantly exerted to better the scientific, material and social condition of every physician within its jurisdiction. Systematic efforts shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every reputable physician in the county.

Section 2. A meeting shall be held at— p. m. on the ——— in each month (or oftener). ——— members shall constitute a quorum.

The officers and committee on program shall profit by experiences and by example of other similar societies, and strive to arrange for the most attractive and successful proceedings for each meeting. Crisp papers and discussions and reports of cases shall be arranged for and encouraged, and tedious and profitless proceedings and discussions shall be avoided as far as practicable.

Section 3. Agreements and schedules for fees shall not be made by this Society, but at least one meeting during each year shall be set apart for discussion of the business affairs of the profession of the county, with the view of adopting the best methods for the guidance of all. In all proper ways the public shall be taught that business methods and prompt collections are essential to the equipment of the modern physician and surgeon and that it suffers even more than the profession when this is not recognized.

Section 4. This Society shall endeavor to educate its members to the belief that the physician should be a leader in his community, in character, in learning, in dignified and mannerly bearing, and in courteous and open treatment of his brother physicians, to the end that the profession may occupy that place in its own and the public estimation to which it is entitled.

CHAPTER III. OFFICERS

1. The officers of the Society shall be elected at the December meeting in each year which shall be known as the annual meeting. Nominations shall be made by informal ballot, and all elections be by ballot. The vote of the majority of

all the members present shall be necessary to an election.

Section 2. The President shall preside at the meetings of the Society, and perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession in the county during the year, and it shall be his pride and ambition to leave it in better condition as regards both scientific attainments and harmony than at the beginning of his term of office.

Section 3. The Vice-President shall assist the President in the performance of his duties, shall preside in the absence and on his death, resignation or removal from the county, shall succeed to the presidency.

Section 4. The Secretary shall record the minutes of the meetings and receive and care for all records and papers belonging to the Society, including its charter. He shall notify each member of the Society as to the time and place of each meeting, and, whenever possible, give the program for the meeting. He shall keep account of and promptly turn over to the Treasurer all funds of the Society which may come into his hands. He shall make and keep a list of the members of the Society in good standing, noting of each his correct name, address, place and date of graduation, and the date of the certificate entitling him to practice medicine in this State; and in a separate list he shall note the same facts in regard to each legally qualified physician in this county not a member of this Society. It shall be his duty to send a copy of such lists on blank forms furnished him for the purpose, to the Secretary of the state association at such time as may be designated by the state association. In making such lists he shall endeavor to account for each physician who has moved into or out of the county during the year, stating when possible, both his present and past address. At the same time, and with his report of such lists of members and physicians, he shall transmit to the state association his order on the Treasurer for the annual dues of the Society.

Section 5. The Treasurer shall receive all dues and money belonging to the Society from the hands of the Secretary or members and shall pay out the same only on the written orders of the President countersigned by the Secretary.

Section 6. The Delegates shall attend and faithfully represent the members of this Society and the profession of this county in the House of Delegates of the

state association, and shall make a report of the proceedings of that body to this Society at the earliest opportunity.

CHAPTER IV. COMMITTEES

Section 1. There shall be a Board of Censors as provided in the constitution, a Standing Committee on Program and Scientific Work, a Committee on Public Health and Legislation, and such special committees as may from time to time be deemed necessary.

Section 2. Board of Censors. This Board shall examine and report on the qualification of applicants for membership subjecting each applicant to such examination as it may deem necessary. It shall investigate charges preferred against a member, and report its conclusions and recommendations to the Society. In case of the absence of a member of the Board the President may appoint such member to fill the vacancy. The senior member of the Board in point of service shall be Chairman of the Board.

Section 3. Committee on Program and Scientific Work. This Committee shall consist of the President, Vice-President and Secretary. It shall be the duty to promote the scientific and social functions of the Society by arranging attractive programs for each meeting by urging each member to take part in the scientific work. It shall stimulate fraternalism and good feeling among the members in every way possible (Provisions should be made in this Section for the annual luncheons, dinners, etc., which the Committee believes to be an excellent way to bring members together. Such occa-

sions should be made as inexpensive as possible).

Section 4. Committee on Public Health and Legislation. This committee shall consist of three members who shall be appointed annually by the President. It shall be its duty to enforce and support the sanitary and medical laws of the state in this county, to co-operate with the Committee on Public Policy and Legislation of the state association in all matters pertaining to legislation and to prosecute quacks and medical pretenders in this county.

CHAPTER V. FUNDS AND EXPENSES

Section 1. The admission fee, which must accompany the application, shall be \$—— and shall include the annual dues for the fiscal year. The admission fee shall be returned if the applicant is not accepted.

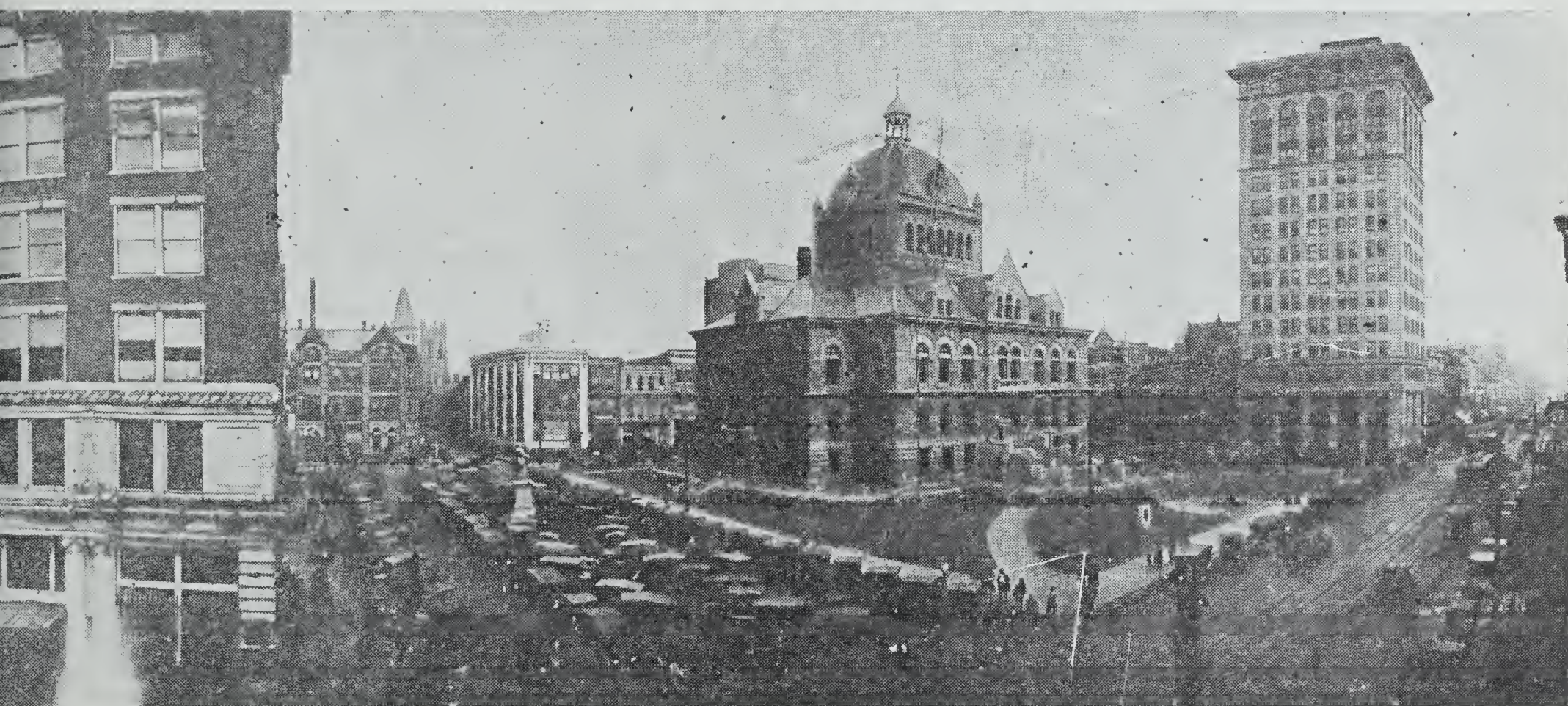
Section 2. The annual dues shall be \$—— and shall be payable on January 1 of each year. Any member who shall fail to pay his annual dues by April 1 shall be held as suspended without action on the part of the Society. A member suspended for non-payment of dues shall be restored in full membership on payment of all indebtedness. Members more than one year in arrears shall be dropped from the roll of members.

Section 3. The fiscal year of this Society shall be from January to December inclusive.

CHAPTER VI. ORDER OF BUSINESS

The order of business shall be as follows:

1. Call to order by the President.



MAIN STREET—COURTHOUSE

2. Reading of the minutes of last meeting.
3. Clinical cases.
4. Papers and discussions.
5. Unfinished business.
6. Miscellaneous business.
7. Announcements.
8. Adjournment.

CHAPTER VII. RULES OF ORDER

The deliberation of this Society shall be governed by parliamentary usage as contained in Roberts' Rules of Order, unless otherwise determined by vote.

CHAPTER VIII. PRINCIPLES OF MEDICAL ETHICS

The Principles of Medical Ethics of the American Medical Association shall govern this Society.

CHAPTER IX. AMENDMENT

These by-laws may be amended at any regular meeting by a two-thirds vote provided that such amendment has been read in open session at the preceding regular meeting and a copy of the same has been sent to each member by the Secretary ten days in advance of the meeting at which final action is to be taken.

REPORT OF TREASURER*

STATEMENT OF ASSETS

September 1, 1940

Cash:

Treasurer's Checking account at The Kentucky Bank and Trust Company, Madisonville, Kentucky (Exhibit A)	\$5,009.33
Treasurer's Saving Account at The Kentucky Bank and Trust Company, Madisonville Kentucky (Exhibit B)	9,384.35
Student Loan Fund Account at The Kentucky Bank and Trust Company Madisonville, Kentucky (Exhibit C)	147.82
Total Cash in Bank	\$12,541.50
Bond and Stocks in Possession of Treasurer (Exhibit D)	1,759.75
Office Furniture, etc. (Exhibit E)	950.91
Loan February 10, 1931, from Student Loan Fund	132.78
Net Miscellaneous Accounts Receivable	327.69
Net Book Accounts Receivable	81.97

Total Net Assets\$15,794.60

EXHIBIT A

Kentucky State Medical Association
Reconciliation of Treasurer's Accounts
for the period from September 1, 1939 to
September 1, 1940.

CHECKING ACCOUNT

THE KENTUCKY BANK AND TRUST COMPANY
MADISONVILLE, KENTUCKY

Balance agreeing with Secretary's last report (September 1, 1939)	\$	996.80
Receipts from operation of Association and Journal	\$17,329.06	
Rent—State Department of Health	17,500.00	
Repayment of Loan and Interest—Times-Journal Publishing Co.	500.33	35,329.39
Total	\$36,326.19	
Receipts—McDowell Memorial Fund Donations	625.00	
Book Fund	667.31	

*Books of the Association were audited by Eugene M. Heimerdinger, certified Public Accountant, Louisville, Ky.

Transfer from Savings Account to Checking Account	2,000.00	
Total amount to be accounted for	\$39,618.50	
Disbursements for Kentucky State Medical Association and Journal ..	\$16,053.64	
Rental—State Department of Health and Kentucky State Medical Association building	17,500.00	
McDowell Memorial Expense	1,653.63	
Book Fund	1,401.90	36,609.17

Balance in Treasurer's Checking Account (September 1, 1940)	\$	3,009.33
Reconciliation of above balance with statement received from The Kentucky Bank and Trust Company, Madisonville:		
Treasurer's Checking Account	\$	7,275.27
Less—Vouchers outstanding, Viz:		
Check No. Date Issued To Whom Amount		
173—July 31, 1940—A. T. McCormack, M. D.	\$135.00	
174—July 31, 1940—L. H. South, M. D.	96.50	
175—July 31, 1940—J. F. Blackerby ..	30.00	
176—July 31, 1940—Elva V. Grant	65.00	
177—July 31, 1940—Elizabeth Conkling ..	50.00	
178—July 31, 1940—Louisville Postmaster	42.55	
179—July 31, 1940—Judge Rex Logan, P. M.	50.00	
180—July 31, 1940—State Department of Health	2.10	
181—July 31, 1940—State Department of Health	4.50	
182—July 31, 1940—Standard Printing Company	2.36	
183—July 31, 1940—Curtis & Curtis, Attorneys	150.00	
184—July 31, 1940—Bush-Krebs Co.	23.91	
185—July 31, 1940—Electric Blue Print & Supply Company	13.50	
186—July 31, 1940—American Medical Association	15.00	
187—July 31, 1940—New Capital Hotel ..	26.22	
188—July 31, 1940—Times-Journal Publishing Company	470.83	
188a—July 31, 1940—Mrs. F. B. Allen ..	1,000.00	
189—Aug. 31, 1940—A. T. McCormack, M. D.	135.00	
190—Aug. 31, 1940—L. H. South, M. D.	90.00	
191—Aug. 31, 1940—J. F. Blackerby ..	30.00	
192—Aug. 31—Elva V. Grant	65.00	
193—Aug. 31, 1940—Elizabeth Conkling ..	50.00	
194—Aug. 31, 1940—Times-Journal Publishing Company	550.00	
195—Aug. 31, 1940—Standard Printing Company	1,168.47	\$4,265.94

Balance agreeing with Treasurer's Balance.... \$3,009.33
Vouchers Nos. 189 through 195 are in the hands of the Secretary to be delivered when due.

EXHIBIT B

Kentucky State Medical Association
Savings Account
The Kentucky Bank and Trust Company
Madisonville, Kentucky

RECEIPTS

Balance agreeing with Secretary's last report, September 1, 1939	\$10,390.68
Capital:	
Louisville Title Mortgage Company Participation Certificate No. L 7590 (Rudy)	850.00
Home Owners Loan Corporation Bonds Called ..	750.00
Interest:	
On Louisville Title Mortgage Company Participation Certificate (Accumulation) \$107.01	
On Home Owners Loan Corporation Bonds	10.33
Total Interest	\$117.34
Dividends:	
On Louisville Title Mortgage Company Certificates Nos. 3069 and 1701	26.33
Total Interest and Dividends	143.67
TOTAL	\$12,134.35

DISBURSEMENTS

Transferred to Checking Account ..	\$2,000.00
United States Saving Bond No. M 139598 D Purchased ..	750.00
Balance in Treasurer's Savings Account, September 1, 1940	\$9,384.35

Reconciliation of the above balance with statement received from The Kentucky Bank and Trust Company of Madisonville:
Balance in The Kentucky Bank and Trust Company, Madisonville, Kentucky,
Treasurer's Savings Account \$9,384.35

EXHIBIT C

Student Loan Fund Savings Account
The Kentucky Bank and Trust Company
Madisonville, Kentucky

Balance in Student Loan Fund Savings Account (as per Secretary's last report, September 1, 1939) agreeing with statement received from The Kentucky Bank and Trust Company, Madisonville				\$22.82
1939	Principal	Interest		
Aug. 25	Payment on loan—			
	..... \$23.07	\$1.93		
Oct. 11	Payment on loan—			
	..... 48.54	1.46		
1940				
April 11	Payment on loan—			
	..... 45.61	4.39		
Total Principal Payment..			117.22	
Total Interest Payment			7.78	
				117.22
				7.78
Total agreeing with statement received from The Kentucky Bank and Trust Company, Madisonville, Kentucky				147.82

EXHIBIT D

Kentucky State Medical Association
Bond and Stocks
September 1, 1940

Bonds:			
\$1,000.00 United States Savings Bond No. M139598D		\$750.00	
Louisville Title Mortgage Company Participation Certificate No. L 7594 Bond No. 3 Early 36768 S. F....	\$850.00		
Less Partial Payment....	590.25		259.75
Total Bonds		\$1,009.75	
Stocks:			
Louisville Title Mortgage Company Common Stock Certificate No. 3069—81 shs. and Certificate No. 1701—31-100 shs.....		\$ 750.00	
(Estimated Market Value \$325.24)			
Total Bonds and Stocks		\$1,759.75	

The above bonds and stocks are held by The Kentucky Bank and Trust Company of Madisonville, Kentucky, in safe keeping for Amplas W. Davis, Treasurer, Madisonville, Kentucky.

EXHIBIT E

Invoice of the Property of the Association
September 1, 1940

37 Bound Volumes Kentucky Medical Journals 1903-1939	\$370.00	
1 Allen Wales Adding Machine, No. 10350	\$175.00	
Less 60 per cent Depreciation..	105.00	70.00
1 12" Oscillating Fan	16.00	
Less 40 per cent Depreciation..	6.40	9.60
1 Portable Amplifier Complete.....	230.23	
Less 10 per cent Depreciation...	23.02	207.21
1,000 No. 5 2-cent envelopes, Kentucky State Medical Association, at \$21.96 per M.....		21.96
3,000 No. 5 3-cent envelopes, Kentucky State Medical Association, at \$31.96 per M.....		95.88
500 No. 8 2-cent envelopes, Kentucky State Medical Association at \$22.88 per M.....		11.44
2,250 No. 8 3-cent envelopes, Kentucky State Medical Association, at \$32.88 per M.....		73.98
1,000 No. 9 2-cent envelopes, Kentucky State Medical Association, at \$23.16 per M.....		23.16
34,500 No. 6 3-4 Non-stamped envelopes at \$1.04 per M.....		35.88
26,000 No. 10 Non-stamped envelopes at \$1.59 per M.....		31.80
Total		\$950.91

OLD PROPERTY

- 1 Underwood Typewriter
 - 1 Filing Cabinet
 - Rubber Stamps
 - Guide Cards
 - 1 Globe Safe and Fixtures
 - 1 Cabinet for Addressograph, 36 drawers
 - 2 Cabinet for Addressograph, 18 drawers each
 - 1 Cabinet for Addressograph, 9 drawers
 - 23 Drawers
 - 2,700 Medical Addressograph Plates
- (All of the property listed as "Old Property" has been fully depreciated, and very little if anything, could be realized from the sale of same, should a disposition be made of this property.)

EXHIBIT F

Book Fund

Books Delivered—Payments Outstanding:		Amount Due
Books		
1 Centre College, Danville, Kentucky..		\$3.50
1 The John Crerar Library, Chicago, Ill.		2.40
1 George F. Doyle M. D. Winchester, Kentucky		3.50
1 The Baker & Taylor Co., New York, New York		2.00
1 Barnes & Noble, Inc., New York New York		2.00
1 D. F. Hall, M. D. Louisville, Kentucky		3.50
1 Indiana State Library, Indianapolis Indiana		2.40
1 Kentucky State Historical Society Frankfort, Ky.		3.00
1 W. H. Lucas M. D. Cedartown, Georgia		3.50
1 Armand J. Mauley, M. D., Chicago, Illinois		3.50
1 Library N. Y. Academy of Medicine, New York		2.80
2 Louisville Free Public Library, Louisville, Ky.		4.80
1 Medical Center Bookstore, New York		2.40
1 Medical Center Library San Francisco, Calif.		2.80
1 Parke, Davis & Company, Detroit, Michigan		3.00
1 Peabody Book Shop, Inc., Baltimore, Maryland		2.34
1 Public Library of Cincinnati, Cincinnati Ohio		2.80
1 Public Library of Covington and Kenton County, Ky., Covington, Ky...		2.80
1 Duke University Durham, N. C....		2.40
1 Emory University, Emory University, Georgia		2.80
1 Illinois University Library, Urban, Illinois		3.00
1 Michigan University, Ann Arbor, Michigan		2.40
1 University of Rochester, Rochester, New York		2.00
1 Vanderbilt University, Nashville, Tennessee		2.33
1 University of Virginia, Charlottesville, Virginia		2.40
2 University of Kentucky, Lexington, Kentucky		6.00
1 Tennessee Valley Authority Knoxville, Tennessee		2.80
1 Western Kentucky Teachers College, Bowling Green, Kentucky		2.80
Total		\$81.97

EXHIBIT G

RECEIPTS

Checking Account:		
Dues from County Societies (Exhibits H and I)	\$9,648.34	
Income from Journal (Exhibit J)....	<u>\$7,680.72</u>	
Total Receipts from Operation in Check- ing Account		\$17,329.06
Rental—State Department of Health (Exhibit K)	17,500.00	
Repayment of Loan and Interest—Times- Journal Publishing Co.	<u>500.33</u>	
Total Receipts of Checking Account		\$35,329.39
McDowell Memorial Fund:		
Donations for Purchase of McDowell Home and Apothecary Shop (Exhibit L).....	625.00	
Book Fund:		
Sale of "Medicine and Its Development In Kentucky" (Exhibit N)	667.81	

EXHIBIT H

Detailed list of receipts from County Societies from September, 1939 to September, 1940 compared with income of same period last year:

Savings Account:		
Capital—Home Owners Loan Corporation Bonds Called	750.00	
Louisville Title Mortgage Co., Cer. No. L-7590 (Rudy)	850.00	
Interest and Dividends on Savings and Investments	143.67	1,743.67
Student Loan Fund:		
Payment on Loan and Interest	125.00	
Total Receipts—All Funds	\$38,490.37	
Balance on Hand September 1, 1939, McDowell Memorial Fund	-747.00	
Balance on Hand September 1, 1939, Association Checking Account	1,743.88	
Balance on Hand September 1, 1939, Savings Account	10,390.68	
Balance on Hand September 1, 1939, Student Loan Fund	22.82	
Total Balances, September 1, 1939	\$11,410.30	
Total Receipts and Beginning Balances—All Funds	\$49,900.67	
DISBURSEMENTS		
Checking Account:		
State Medical Association:		
Secretary's Salary	\$1,620.00	
Secretary's Stenographer's Salary	810.00	
Secretary's Sundries	105.75	
Treasurer's Bond	12.50	
Officers, Councilors and Committee Expenses	265.15	
Committee on Public Policy Expense	960.00	
Attorneys' Fees, Medico-Legal Committee	450.00	
Medico-Legal Committee—Cost and Expenses	7.50	
Stenographer, Medico-Legal Committee	600.00	
Medical Legislation Expense	26.22	
Postage and Stamped Envelopes	717.58	
Medical Research Project (History)	218.14	
Stenographer Medical Survey	55.00	
Telephone and Telegrams	74.87	
Association Sundries	228.86	
Lexington Meeting Expenses	41.05	
Bowling Green Meeting Expenses	1,160.08	
Pediatric Meeting Expenses	49.46	
Donation to McDowell Memorial	500.00	
Total State Medical Association	\$7,902.16	
Kentucky Medical Journal:		
Business Manager's Salary	\$1,080.00	
Business Manager's Sundries	3.42	
Journal Advertisement Collections Fund		
Woman's Auxiliary, Kentucky State Medical Association	20.65	
Journal Printing	6,346.58	
Journal Postage	250.00	
Journal Envelopes	155.70	
Journal Express and Freight	27.92	
Journal Sundries	267.21	
Total Journal	\$8,151.48	
Total Operating Disbursements	\$16,053.64	
Rental—State Department of Health and Kentucky State Medical Association Building	\$17,500.00	
McDowell Memorial Expense	1,653.63	
Book Fund—"Medicine and Its Development In Kentucky". Publication and Distribution Expenses	1,401.90	
Total Rental, Memorial Expenses, and Book Fund	\$20,555.53	
Total Checking Account Disbursements	\$36,609.17	
Savings Account:		
United States Savings Bond No. M 139598 D Purchased	750.00	
Total Disbursements—All Funds	\$37,359.17	
Balance on Hand this date, Checking Account	\$5,519.63	
Balance on Hand this date, McDowell Memorial Fund	-1,775.71	
Balance on Hand this date, Savings Account	9,384.35	
Balance on Hand this date, Student Loan Fund	147.82	
Balance on Hand this date, Book Fund	-734.59	
Total Balances on Hand this date—All Funds	\$12,541.50	
Total Disbursements and Ending Balances—All Funds	\$49,900.67	

	1939	1940
Adair	\$25.00	\$35.00
Allen	35.00	35.00
Anderson	35.00	30.00
Ballard	35.00	25.00
Barren	95.00	80.00
Bath	30.00	35.00
Bell	90.00	143.34
Boone	25.00	35.00
Bourbon	90.00	75.00
Boyd	200.00	180.00
Boyle	60.00	85.00
Bracken-Pendleton	70.00	55.00
Breathitt	20.00	20.00
Breckinridge	30.00	35.00
Bullitt	30.00	25.00
Butler	15.00	5.00
Caldwell	50.00	50.00
Calloway	80.00	80.00
Campbell-Kenton	565.00	625.00
Carlisle	30.00	30.00
Carroll	30.00	30.00
Carter	50.00	40.00
Casey	15.00	15.00
Christian	155.00	175.00
Clark	65.00	95.00
Clay	35.00	40.00
Clinton	15.00	15.00
Crittenden	25.00	35.00
Cumberland	30.00	30.00
Daviess	185.00	190.00
Elliott	5.00	35.00
Estill	35.00	35.00
Fayette	595.00	665.00
Elewing	40.00	50.00
Floyd	85.00	65.00
Franklin	135.00	105.00
Fulton	65.00	70.00
Gallatin	10.00	5.00
Garrard	25.00	20.00
Grant	50.00	60.00
Graves	110.00	105.00
Grayson	15.00	20.00
Green	30.00	30.00
Greenup	55.00	45.00
Hancock	100.00	5.00
Hardin	240.00	100.00
Harlan	65.00	230.00
Harrison	30.00	65.00
Hart	85.00	10.00
Henderson	30.00	90.00
Henry	30.00	25.00
Hickman	30.00	30.00
Hopkins	100.00	120.00
Jackson	25.00	20.00
Jefferson	2,247.50	2,365.00
Jessamine	25.00	50.00
Johnson	60.00	65.00
Knott	5.00	5.00
Knox	55.00	50.00
Larue	15.00	20.00
Laurel	45.00	55.00
Lawrence	45.00	45.00
Lee	15.00	10.00
Leslie	135.00	125.00
Letcher	20.00	10.00
Lewis	40.00	50.00
Lincoln	45.00	45.00
Livingston	75.00	75.00
Logan	30.00	30.00
Lyon	185.00	205.00
McCracken	40.00	45.00
McCreary	30.00	10.00
McLean	170.00	160.00
Madison	10.00	10.00
Magoffin	45.00	50.00
Marion	55.00	50.00
Marshall	95.00	5.00
Martin	5.00	85.00
Mason	10.00	5.00
Meade	60.00	75.00
Menifee	25.00	25.00
Mercer	10.00	15.00
Metcalfe	55.00	50.00
Monroe	10.00	20.00
Montgomery	70.00	85.00
Morgan	55.00	55.00
Muhlenberg	40.00	40.00
Nelson	35.00	45.00
Nicholas	15.00	15.00
Ohio	5.00	5.00
Oldham		
Owen		
Owsley		

	1939	1940
Perry	180.00	165.00
Fike	125.00	115.00
Powell	10.00	10.00
Pulaski	92.08	105.00
Robertson	15.00	15.00
Rockcastle	40.00	40.00
Rowan	30.00	30.00
Russell	15.00	15.00
Scott	65.00	75.00
Shelby	85.00	75.00
Simpson	35.00	35.00
Spencer	10.00	10.00
Taylor	35.00	30.00
Todd	45.00	50.00
Trigg	25.00	10.00
Trimble .....	.....	5.00
Union	20.00	60.00
Warren-Edmonson	130.00	160.00
Washington	35.00	35.00
Wayne	25.00	15.00
Webster	40.00	55.00
Whitley	85.00	110.00
Wolfe	25.00	20.00
Woodford	40.00	45.00
	\$9,244.58	\$9,648.34

EXHIBIT I

Collections of dues by Secretary on account of Kentucky State Medical Association, corresponding with checks, deposits slips and receipts filed.

1939	
Sept. 1—To collections to date.....	\$277.50
Oct. 1—To collections to date.....	95.84
Nov. 1—To collections to date.....	75.00
Dec. 1—To collections to date.....	92.50
1940	
Jan. 1—To collections to date.....	170.00
Feb. 1—To collections to date.....	1,795.00
Mar. 1—To collections to date.....	1,525.00
Apr. 1—To collections to date.....	2,250.00
May 5—To collections to date.....	2,835.00
June 1—To collections to date.....	290.00
July 1—To collections to date.....	80.00
Aug. 1—To collections to date.....	162.50
Total for Year.....	\$9,648.34

EXHIBIT J

Collection by Editor on account of the Journal, corresponding with receipts transferred to the Treasurer as evidenced by checks, deposit slips and receipts on file.

RECEIPTS FROM ADVERTISING:

	Co-operative Gross Amount	Medical Adv. Bureau Deduction	Bureau Net Receipts	Cards Local Adver- tising, Etc.	Profits Dis- tribution by Medical Adv. Bureau	Total Receipts from Journal
1939						
September.....	\$606.34	\$145.52	\$460.82	951.26		\$1,412.08
October	287.67	69.04	218.63	541.63		760.26
November	333.67	80.08	253.59	220.71		474.30
December	264.67	63.52	201.15	338.71		539.86
1940						
January.....	333.67	80.08	253.59	323.96	\$423.33	1,000.88
February.....	287.67	69.04	218.63	262.90		481.53
March.....	340.67	81.76	258.91	212.28		471.19
April.....	288.67	69.28	219.39	250.87		470.26
May.....	342.34	82.16	260.18	207.00		467.18
June.....	298.34	71.60	226.74	165.25		391.99
July	390.34	93.68	286.66	217.47		514.13
August	302.34	72.50	229.78	467.28		697.06
Totals.....	\$4,076.39	\$978.32	\$3,098.07	\$4,159.32	\$423.33	\$7,680.72

EXHIBIT K

Receipts and Disbursements
In connection with Purchase of State Board of Health and Kentucky Medical Association Building, 620 S. Third Street, Louisville, Kentucky.

RECEIPTS

From State Board of Health:	
1939	
Aug. 17—To State of Kentucky Treasury Department Check.....	\$1,000
Oct. 30—To State of Kentucky Treasury Department Check	6,000
1940	
Jan. 22—To State of Kentucky Treasury Department Check	5,300
March 2—To State of Kentucky Treasury Department Check	2,000
June 20—To State of Kentucky Treasury Department Check	3,200
Total Amount Received.....	\$17,500

DISBURSEMENTS

1939	
Sept. 1—Reimbursement to A. T. McCormack, M. D., to apply on Note No. 3	

Payment on Building \$ 337.01	
Interest due on \$99,447.96	662.99
	\$1,000
Oct. 31—Reimbursement to A. T. Cormack, M. D., to apply on Note No. 3	
Payment on Building 5,339.26	
Interest due on \$99,110.95	660.74
	6,000
Dec. 30—Reimbursement to A. T. McCormack, M. D. to apply on Notes No. 3 and 4	
Payment on Building 4,466.47	
Interest due on \$93,771.69	833.53
	5,300
1940	
Feb. 29—Reimbursement to A. T. McCormack M. D., to apply on Note No. 4	
Payment on Building 1,603.09	
Interest due on \$89,305.22	396.91
	2,000
June 29—Reimbursement to A. T. McCormack, M. D., to apply on Note No. 4	
Payment on Building 1,874.72	
Interest due on \$87,702.13	1,325.28
	3,200
Total Amount Disbursed.....	17,500

EXHIBIT L

McDowell Memorial Fund

Balance agreeing with last report,
September 1, 1939 \$ -747.08

RECEIPTS

Donations:

Kentucky State Medical Association \$500.00 Custodian.....
H. L. Foss, M. D., Danville, Pennsylvania 25.00 Doner
Henry Cave, M. D., New York, N. Y. 100.00 Custodian 625.00
Total \$ -122.08

DISBURSEMENTS

Incidental Items for restoration of Home \$ 9.95
Incidental items for dedication..... 16.12
McDowell supplement to November 1939 Journal 496.13
Collection of books and other items exhibited in Home 131.43
Original portrait of Ephraim McDowell 1,000.00
Total Disbursements 1,653.63

Overdrawn balance due Treasurer's Checking Account \$ -1,775.71

EXHIBIT M

Recapitulation of all Donations

McDowell Memorial Fund

	Custodian	Donors	Total
Members of Kentucky State Medical Association....	\$4,350.00	\$558.00	\$4,908.00
Fellows of Southern Surgical Association	3,175.00	375.00	3,550.00
Fellows of American College of Surgeons.....	2,260.00	1,317.00	3,577.00
Fellows of American College of Physicians.....	600.00	265.00	865.00
Members of Southeastern Surgical Congress.....	100.00	80.00	180.00
American Gynecological Society	500.00		500.00
Kentucky State Medical Association	500.00		500.00
Miscellaneous	300.00	215.88	515.88
Total	\$11,785.00	\$2,810.88	\$14,595.88

McDowell Memorial Fund

Receipts and Expenditures January 13
1936 through August 31, 1940

Ephraim McDowell Home

Donations \$11,220.88

Expenditures:

Purchase of Property \$10,000.00
Original Portrait of Ephraim McDowell.. 1,000.00
Interest on Notes 81.17
150 McDowell Home Models 150.00
Incidental Items for Restoration of Home 110.46
Incidental Items for Dedication 175.86
McDowell Supplement to November, 1939 Journal 496.13
Postage and Express... 553.84
Collection of Books and Other Items Exhibited In Home 131.43
Telephone L. D. 23.75
Office Expense 60.23

Total Expenditures \$12,782.87

Doctor's Shop

Donations \$3,375.00

Expenditures

Purchase of Property \$3,500.00
Postage 75.33
Overdrawn Balance..... \$ -1,561.99
Office and other Expense 13.39
Total Expenditures \$3,588.72
Balance \$ -213.72
Total Balance..... \$ -1,775.71

EXHIBIT N

"Medicine and Its Development In
Kentucky"

Book Fund

RECEIPTS

Sale of Books:

195 Books at \$3.00 each (pre-publication price) \$585.00
12 Books at \$3.00 each \$36.00
Less 33 1-3 per cent discount..... 12.00 24.00
13 Books at \$3.00 each 39.00
Less 20 per cent discount..... 7.80 31.20
6 Books at \$3.50 each (after publication price) 21.00
2 Books at \$3.50 each 7.00
Less 20 per cent discount 1.40 5.60

Returned Postage51

Total to be accounted for..... \$667.31

DISBURSEMENTS

Publication cost—1,000 copies \$1,297.07
Postage 104.83

Total Disbursements \$1,401.90

Overdrawn Balance Due Treasurer's

Checking Account \$ -734.59

Detail of Original Publication:

Total Sale 228
Books donated to W. P. A. 10
Books delivered payment outstanding.... 30
Books on hand 732

Original publication 1,000

EXHIBIT O

Total membership by Councilor Districts and by Counties for 1940 as compared to that of 1939.

First District—V. A. Stilley Benton, Councilor

	1939	1940
Ballard	6	5
Caldwell	10	10
Calloway	16	16
Carlisle	6	6
Crittenden	5	6
Fulton	13	14
Graves	20	21
Hickman	6	6
Livingston	8	9
Lyon	4	4
Marshall	11	10
McCracken	37	39
Trigg	4	2

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Second District—D. M. Griffith, Owensboro, Councilor

Daviess	37	38
Hancock	—	1
Henderson	17	18
Hopkins	17	21
McLean	6	2
Muhlenberg	14	16
Ohio	7	9
Union	3	12
Webster	8	9

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Third District—C. C. Turner, Glasgow, Councilor

Allen	7	7
Barren	19	16
Butler	3	1
Christian	31	33
Cumberland	6	6
Logan	15	15
Metcalfe	5	5
Monroe	2	2
Simpson	7	7
Todd	8	9
Warren-Edmonson	25	26

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Fourth District—J. I. Greenwell, New Haven, Councilor

Breckinridge	6	6
Bullitt	6	5
Grayson	3	3
Hardin	20	20
Hart	6	1
Larue	3	4

Meade	1	1
Nelson	11	11
Spencer	1	1
	57	52
Fifth District—J. B. Lukins, Louisville, Councilor		
Carroll	6	6
Franklin	26	20
Gallatin	2	1
Henry	5	5
Jefferson	411	432
Oldham	—	—
Owen	3	3
Shelby	17	15
Trimble	—	1
	470	483
Sixth District—W. B. Atkinson, Campbellsville, Councilor		
Adair	5	7
Anderson	7	6
Boyle	12	17
Green	6	6
Marion	9	10
Mercer	12	14
Taylor	7	6
Washington	7	7
	65	73
Seventh District—Virgil Kinnaird, Lancaster, Councilor		
Casey	3	3
Clinton	3	3
Garrard	5	4
Lincoln	8	9
McCreary	7	8
Fulaski	18	21
Rockcastle	8	7
Russell	3	3
Wayne	5	3
	60	61
Eighth District—Luther Bach, Bellevue, Councilor		
Boone	5	6
Bracken-Fendleton	14	11
Campbell-Kenton	104	116
Fleming	8	10
Grant	10	12
Harrison	13	13
Mason	18	16
Nicholas	8	8
Robertson	3	3
	183	195
Ninth District—Proctor Sparks, Ashland, Councilor		
Boyd	40	36
Carter	10	8
Elliott	1	—
Floyd	15	12
Greenup	10	9
Johnson	11	13
Lawrence	9	9
Lewis	4	2
Magoffin	—	1
Martin	—	1
Pike	23	23
	123	114
Tenth District—C. A. Vance, Lexington, Councilor		
Bath	6	6
Bourbon	16	15
Breathitt	3	4
Clark	13	17
Estill	7	7
Fayette	119	126
Jessamine	5	10
Lee	3	2
Madison	32	31
Menifee	1	1
Montgomery	10	10
Morgan	2	4
Owsley	1	1
Powell	2	2
Rowan	6	6
Scott	13	14
Wolfe	5	4
Woodford	8	8
	252	268

Eleventh District—H. K. Buttermore Liggett, Councilor			
Bell	18		26
Clay	7		8
Harlan	46		45
Jackson	4		4
Knott	—		—
Knox	11		10
Laurel	9		10
Leslie	—		—
Letcher	26		24
Perry	30		32
Whitley	17		21
	168		180
District Total	168		180
Grand Total	1,761		1,827

Reconciliation of Membership and Dues

Collected for 1939-1940

	Number	Rate	Amount	Total Amount
Current Year Dues..	1,824	\$5.00	\$9,120.00	
Current Year Dues (1-2 Year).....	3	2.50	7.50	
Total Current Year Dues				\$9,127.50
1941 Dues Paid.....	2	5.00		10.00
Delinquent Dues Collected during 1939-1940:				
First District				
Crittenden	1	5.00	5.00	
McCracken	2	5.00	10.00	
Second District				
Hopkins	3	5.00	15.00	
Webster	2	5.00	10.00	
Third District				
Christian	2	5.00	10.00	
Monroe	1	5.00	5.00	
Todd	1	5.00	5.00	
Warren-Edmonson	6	5.00	30.00	
Fourth District				
Breckinridge ...	1	5.00	5.00	
Grayson	1	5.00	5.00	
Hart	1	5.00	5.00	
Spencer	1	5.00	5.00	
Fifth District				
Franklin	1	5.00	5.00	
Jefferson	35	5.00	175.00	
Jefferson (1-2 Year)	11	2.50	27.50	
Jefferson—(1—1937 and 1—1938)	2	5.00	10.00	
Sixth District				
Mercer	1	5.00	5.00	
Seventh District				
Lincoln	1	5.00	5.00	
McCreary	1	5.00	5.00	
Rockcastle	1	5.00	5.00	
Eighth District				
Boone	1	5.00	5.00	
Campbell-Kenton ...	9	5.00	45.00	
Mason	1	5.00	5.00	
Ninth District				
Magoffin	1	5.00	5.00	
Tenth District				
Bath	1	5.00	5.00	
Clark	2	5.00	10.00	
Fayette	7	5.00	35.00	
Madison	1	5.00	5.00	
Scott	1	5.00	5.00	
Woodford	1	5.00	5.00	
Eleventh District				
Bell	2	5.00	10.00	
Bell	2	1.67	3.34	
Harlan	1	5.00	5.00	
Laurel	1	5.00	5.00	
Letcher	1	5.00	5.00	
Perry	1	5.00	5.00	
Whitley	1	5.00	5.00	
Total Delinquent Dues Collected				\$510.84
Total Collections				\$9,648.34

EXHIBIT P

Secretary's Monthly Balance Sheet, Agreeing With Books
1939

Sept. 1	Balance on hand (Checking Account).....			\$1,743.88
	Balance on hand (McDowell Memorial Fund).....			-747.08
	Total Balance on hand			\$ 996.80
		Disbursements	Collections	Balance
Sept. 1	Association and Journal	\$	\$1,689.58	\$2,686.38
Oct. 1	Association and Journal	2,028.82	856.10	.....
	McDowell Memorial Fund	31.64	.....	.....
	Rent	1,000.00	1,000.00	1,482.02
Nov. 1	Association and Journal	1,588.86	549.80	.....
	Association and Journal transferred to McDowell Fund	500.00	.....	.....
	McDowell Memorial Fund	486.33	500.00	.....
	Rent	6,000.00	6,000.00	-43.87
Dec. 1	Association and Journal	1,844.22	632.36	.....
	McDowell Memorial Fund	96.95	.....	.....
	Association and Journal transfer from Savings Account .....	.....	2,000.00	647.32
1940				
Jan. 1	Association and Journal	928.64	1,170.88	.....
	Rent	5,300.00	5,300.00	889.56
Feb., 1	Association and Journal	1,200.90	2,276.53	.....
	McDowell Memorial Fund	17.50	25.00	1,972.69
Mar. 1	Association and Journal	917.43	1,996.19	.....
	McDowell Memorial Fund	2.98	.....	.....
	Rent	2,000.00	2,000.00	3,048.47
Apr. 1	Association and Journal	1,276.00	2,720.26	.....
	McDowell Memorial Fund .....	.73	100.00	4,592.00
May 1	Association and Journal	1,097.12	3,302.18	.....
	Book Fund	24.20	.....	6,772.86
June 1	Association and Journal	1,028.94	681.99	.....
	McDowell Memorial Fund	17.50	.....	.....
	Book Fund	206.87	519.20	6,720.74
July 1	Association and Journal	1,047.27	594.13	.....
	Rent	3,200.00	3,200.00	.....
	Book Fund .....	.....	103.70	6,371.30
Aug. 1	Association and Journal	1,175.11	859.56	.....
	McDowell Memorial Fund	1,000.00	.....	.....
	Book Fund	2.36	44.41	5,097.80
Sept. 1	Association and Journal	920.00	.....	.....
	Book Fund	1,168.47	.....	3,009.38
	Totals	Total \$36,108.84	\$38,121.37	

	Disbursements	Receipts		
Totals Brought Forward	\$36,108.84	\$38,121.37	Balance on hand, Sept. 1, 1939:	
Repayment of Loan and Interest — Times-Journal Publishing Company— used as credits in paying bills for Journal printing	\$ 500.33	\$ 500.33	Checking Account	\$ 1,743.88
			McDowell Memorial Fund ...	-747.08
	\$36,609.17	\$38,621.70		\$39,618.50
			Balance on hand, Sept 1 1940:	
			Association and Journal	\$ 5 519.63
			McDowell Memorial Fund	-1,775.71
			Book Fund	-734.59
			Net Checking Account Balance	\$ 3,009.33
			Total Disbursements as Above.....	\$36,609.17 \$39,618.50

EXHIBIT Q

Detailed Statement of Disbursements of A. W. Davis, M. D., Treasurer, Kentucky State Medical Association, each made on a Voucher Check signed by John W. Scott, M. D., President, A. T. McCormack, M. D., Secretary, and himself, from September 1, 1939 to September 1, 1940.

1939			
Sept. 1	—Voucher Check No.1.....		\$1,000.00
	A. T. McCORMACK, M. D., Louisville		
	To reimbursement for rent on building located at 620 S. Third Street Louisville		
	Payment on principal of note due 9-1-40	\$ 337.01	
	Interest to 9, 1-39.....	662.99	
		1,000.00	
	Approved by Council and Ordered Paid by House of Delegates.		
Sept. 1	—Voucher Check No. 2.....		55.00
	MILDRED SHIPPER, Louisville		
	To 1 month's service assisting with medical economics study	55.00	
	Approved by Council and Ordered Paid by House of Delegates.		
Sept. 15	—Voucher Check No. 3.....		14.74
	CHARLES A. VANCE, M. D., Lexington		
	To reimbursement for long distance calls and telegrams regarding arrangements for McDowell Dedication (McDowell Fund Expense)	14.74	
	Approved by Council and Ordered Paid by House of Delegates.		

Sept. 15—Voucher Check No. 4.....	49.46
PHILIP F. BARBOUR, M. D., Louisville	
To expense of trip to Harlan for self.....	16.91
To expense of trip to Bardwell for Dr. Lee Palmer and self.....	32.55
(For Pediatric Meetings)	<u>49.46</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 5.....	1.45
MALCOLM N. OWEN, Louisville	
To reimbursement for materials used in making display case for knocker for McDowell	
Home (McDowell Fund Expense).....	1.45
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 6.....	2.50
LEE HAMILTON, Attorney, Louisville	
To reimbursement for recording deed from Nash Raum and wife (Purchase of Apothecary	
Shop) (McDowell Fund Expense).....	2.50
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 7.....	50.00
JUDGE REX LOGAN Bowling Green	
To postage for Journal.....	50.00
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 8.....	21.15
LOUISVILLE POSTMASTER, Louisville	
To postage	21.15
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 9.....	6.00
SIMMONS STUDIO, Danville	
To 2 8x10 pictures and views of Weisiger Plaque McDowell Knocker	
(McDowell Fund Expense).....	6.00
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 10.....	31.21
BUSH-KREBS CO., Louisville	
To 6 Sq. Copper HT's Portraits of Men for Annual Number	21.80
To 1 Sq. HT X-ray illustration.....	3.89
To 1 Sq. Copper HT Portrait for Program.....	5.52
	<u>31.21</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 11.....	15.45
SOUTHERN BELL TELEPHONE & TELEGRAPH CO, Louisville	
To long distance calls	15.45
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 12.....	37.57
COURIER-JOURNAL JOB PRINTING CO., Louisville	
To 2500 inserts of photograph of John W. Scott, M. D., for Annual Number....	37.00
Postage and Insurance.....	.57
	<u>37.57</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 13.....	53.62
F. & N. MANUFACTURING CO., East Providence, R. I.	
To 355 Bangles "Bowling Green 1939 at 15c each	53.25
Postage and Insurance.....	.37
	<u>53.62</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 15—Voucher Check No. 14.....	90.20
THE TIMES-JOURNAL PUBLISHING CO., Bowling Green	
To 2,500 August Issue—84 pages	621.00
To Audit—6 point	75.00
To Inserts	5.00
To express on inserts.....	.76
Postage on returned cards.....	.44
	<u>702.20</u>
Less 100 July Journals Short.....	12.00
Less 12th payment on note of 1,400.00.....	75.00
	<u>87.00</u>
	615.20
Less credit by Check No. 187 dated 7-31-39 600.00 less 75.00.....	525.00
	<u>90.20</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 15.....	135.00
A. T. McCORMACK, M. D., Louisville	
To September salary, Secretary	135.00
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 16.....	93.42
L. H. SOUTH, M. D., Louisville	
To September salary, Business Manager.....	90.00
To expense of trip to Bowling Green and return in regard	
to Journal, 6-16 & 17-39.....	3.42
	<u>93.42</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 17.....	90.00
J. F. BLACKERBY, Louisville	
To September services rendered Committee on Public Policy.....	90.00
Approved by Council and Ordered Paid by House of Delegates.	

Sept. 30—Voucher Check No. 18.....	105.40
ELVA GRANT, Louisville	
To September salary, Bookkeeper.....	75.00
To expenses for State Meeting at Bowling Green	30.40
	<u>105.40</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 19.....	50.00
ELIZABETH CONKLING, Louisville	
To September salary, Stenographer for Medico-Legal Committee	50.00
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 20.....	50.00
F. WILLETT HAGEN, C. P. A., Louisville	
To auditing accounts of Marshall McDowell, M. D., Former Treasurer, and	
A. W. Davis, M. D., Treasurer, and A. T. McCormack, M. D., Secretary, Ken-	
tucky State Medical Association, and Mrs. Luther Bach, Treasurer, Woman's	
Auxiliary, and Mrs. William E. Emrich, Business Manager, Woman's Auxiliary	
Quarterly for the period from September 1, 1938 to August 31, 1939.....	50.00
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 21.....	17.25
SOUTHERN BELL TELEPHONE & TELEGRAPH CO., Louisville	
To long distance calls.....	17.25
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 22.....	5.01
MEFFERT EQUIPMENT CO., Louisville	
To 1 592 File Box	1.00
To 1 set A-Z Legal Guides.....	1.00
To 3 pkgs. No. 103 Plain Memo Book Sheets .....	.45
To 4 No. 93 Card Boxes at 64c.....	2.56
	<u>5.01</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 23.....	96.70
CHARLES A. VANCE, M. D., Lexington	
To expenses as Councilor of the 10th District.....	96.70
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 24.....	515.50
THE TIMES-JOURNAL PUBLISHING CO., Bowling Green	
To 2300 September Issue—72 pages.....	504.00
Less 13th payment on note of 1,400.00.....	75.00
	<u>429.00</u>
Less credit by Check No. 194 dated 8-31-39 (500.00 less 75.00).....	425.00
	<u>4.00</u>
To 2300 October Issue—72 pages.....	504.00
Less 14th payment on note of 1,400.00.....	75.00
	<u>429.00</u>
	<u>433.00</u>
To 800 Annual Programs, 28 pages including cover	82.50
	<u>515.50</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 25.....	1.75
ELECTRIC BLUE PRINT & SUPPLY CO., Louisville	
To 5 sheets No. 9—30x40 Mounting Board.....	1.75
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 26.....	5.76
RAILWAY EXPRESS AGENCY, Louisville	
To express for JOURNAL as follows:	
From Bowling Green, 6-14, 15, 24 and 8-14-39.....	3.97
To Bowling Green, 8-16-39.....	1.04
	<u>5.01</u>
To express for ASSOCIATION, as follows:	
To Bellevue, 8-11-39.....	.25
To Chicago, 8-11-39.....	.25
To Madisonville, 8-29-39.....	.25
	<u>.75</u>
	<u>5.76</u>
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 27.....	4.00
H. HESSE, Louisville	
To 1 copy and 2 8x10 prints of Dr. C. H. Spillman.....	4.00
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 28.....	9.56
LOUISVILLE POSTMASTER, Louisville	
To postage, 8-1, 31-39.....	9.56
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 29.....	6.30
K. C. KENNEY, London	
To 1 Tomb Stone Holder including material and labor	5.50
To express charges .....	.80
	<u>6.30</u>
(McDowell Fund Expense)	
Approved by Council and Ordered Paid by House of Delegates.	
Sept. 30—Voucher Check No. 30.....	\$75.00
GILLILAND LABORATORIES, Marietta, Pa.	
To refund of amount paid for exhibit space No. 4 at 1939 State Meeting	
(Space not occupied).....	75.00
Approved by Council and Ordered Paid by House of Delegates.	

Sept. 30—Voucher Check No. 31.....		\$45.00
V. A. STILLEY, M. D., Benton		
To expenses as Councilor of the 1st District.....	45.00	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 32.....		10.00
D. M. GRIFFITH, M. D., Owensboro		
To expenses as Councilor of 2nd District.....	10.00	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 33.....		24.25
W. B. ATKINSON, M. D., Campbellsville		
To expenses as Councilor of 6th District.....	24.25	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 34.....		19.65
PROCTOR SPARKS, M. D., Ashland		
To expenses as Councilor of the 9th District.....	19.65	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 35.....		49.29
MAYME SULLIVAN, Louisville		
To reimbursement for the following:		
Express to Bowling Green for Journal 6-15-39	1.10	
Telegrams to Washington, 6-30-39, Paducah, 7-19-39 and Chicago, 7-19-39,		
for Association	5.59	
	<u>6.69</u>	
To expenses for State Meeting at Bowling Green for self, night watchman,		
stereoptican operator and miscellaneous items	42.60	
	<u>49.29</u>	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 36.....		12.97
RAY WUNDERLICH, Louisville		
To expenses for State Meeting at Bowling Green	12.97	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 37.....		13.15
ELIZABETH THOMAS, Louisville		
To expenses to Council Meeting at Mammoth Cave, 8-20-39.....	3.85	
To expenses to State Meeting at Bowling Green	9.30	
	<u>13.15</u>	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 38.....		7.20
AGNES E. BLAIR, Louisville		
To expenses to State Meeting at Bowling Green	7.20	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 39.....		82.70
ROGER I. LEE, M. D., Boston, Mass.		
To expenses as Guest Speaker at State Meeting at Bowling Green	82.70	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 40.....		32.25
DONALD GUTHRIE, M. D., Sayre, Fa.		
To expenses as Guest Speaker at State Meeting at Bowling Green.....	32.25	
Approved by Council and Ordered Paid by House of Delegates.		
Sept. 30—Voucher Check No. 41.....		75.00
LOUIS HAMMAN, M. D., Baltimore, Md.		
To expenses as Guest Speaker at State Meeting at Bowling Green.....	75.00	
Approved by Council and Ordered Paid by House of Delegates.		
Oct. 31—Voucher Check No. 42.....		6,000.00
A. T. McCORMACK, M. D., Louisville		
To reimbursement for rent on building located at 620 S. Third St., Louisville:		
Payment on principal of note due 9-1-40.....	5,339.26	
Interest, 9-1-39 through 10-30-39.....	660.74	
	<u>6,000.00</u>	
Oct. 31—Voucher Check No. 43.....		135.00
A. T. McCORMACK, M. D., Louisville		
To October salary, Secretary.....	135.00	
Oct. 31—Voucher Check No. 44.....		101.75
L. H. SOUTH, M. D., Louisville		
To October salary, Business Manager.....	90.00	
To expenses to State Meeting at Bowling Green, 9-10-14-39 inclusive.....	11.75	
	<u>101.75</u>	
Oct. 31—Voucher Check No. 45.....		90.00
J. F. BLACKERBY, Louisville		
To October services rendered Committee on Public Policy	90.00	
Oct. 31—Voucher Check No. 46.....		75.00
ELVA GRANT, Louisville		
To October salary, Bookkeeper.....	75.00	
Oct. 31—Voucher Check No. 47.....		50.00
ELIZABETH CONKLING, Louisville		
To October salary, Stenographer for Medico-Legal Committee.....	50.00	
Oct. 31—Voucher Check No. 48.....		29.80
V. A. STILLEY, M. D., Benton		
To expenses as Councilor of the 1st District.....	29.80	
Oct. 31—Voucher Check No. 49.....		1.15
MALCOLM OWEN, Louisville		
To reimbursement for materials and labor for restoration of Doctor McDowell's		
tombstone (McDowell Fund Expense).....	1.15	
Oct. 31—Voucher Check No. 50.....		57.71
LOUISVILLE POSTMASTER, Louisville		
To postage for September.....	57.71	

Oct. 31—Voucher Check No. 51.....			\$17.55
SOUTHERN BELL TELEPHONE & TELEGRAPH CO., Louisville			
To long distance calls.....	17.55		
Oct. 31—Voucher Check No. 52.....			1.81
RAILWAY EXPRESS AGENCY, Louisville			
To express for Journal, as follows:			
From Bowling Green, 9-3-39.....	.68		
To Bowling Green, 9-19-39.....	1.13		
	1.81		
Oct. 31—Voucher Check No. 53.....			2.95
KOEHLER STAMP & STENCIL CO., Louisville			
To 1 Signature Stamp and Wood Cut.....	2.95		
Oct. 31—Voucher Check No. 54.....			15.30
MULTIGRAPH SALES AGENCY, Louisville			
To 1 ft. No. 1226 12 pt. Engravers Old English.....	4.00		
To 1 ft. No. 2426 24 pt. Engravers Old English.....	5.80		
To 1 ft. No. 831 8-12 pt. Cheltenham Medium Italic Type.....	4.60		
P. P. ....	.30		
	15.30		
Oct. 31—Voucher Check No. 55.....			2.14
MEFFERT EQUIPMENT CO., Louisville			
To 6 doz. Magazine Hooks No. 2000 at 35c.....	2.10		
Less 15 per cent.....	.30	1.80	
To 2 No. 548 Index Books.....	.40		
Less 15 per cent.....	.06	.34	
	2.14		
Oct. 31—Voucher Check No. 56.....			52.49
BUSH-KREBS CO., Louisville			
To 1 Z. E. Emblem for Stationery.....	2.81		
To 1 Multigraph Electro of Emblem.....	1.50		
	4.31		
To Proofing up lot of old halftone Engravings.....	2.00		
To 8 sq. HT's Miscellaneous Groups, Portraits, Etc.	47.16		
	49.16		
Less 2 per cent.....	.98		
(McDowell Fund Expense)		48.18	
	52.49		
Oct. 31—Voucher Check No. 57.....			1,120.00
THE TIMES-JOURNAL PUBLISHING CO., Bowling Green			
To 2400 November Issue—116 pages.....	842.00		
To 6 pt. Tabular.....	10.00		
	852.00		
Less 8 pages charged in October Issue—(64 pages instead of 72).....	52.00		
Less 15th payment on note of 1,400.00.....	75.00	127.00	
	725.00		
To 3,000 Supplements to November Issue—36 pages—McDowell Memorial Home			
(McDowell Fund Expense).....	395.00		
	1,120.00		
Oct. 31—Voucher Check No. 58.....			42.00
SCHUMAN'S, New York, N. Y.			
To 1 copy of Eclectic Repertory published 1817 (McDowell Fund Expense).....	42.00		
Oct. 31—Voucher Check No. 59.....			280.54
LOUISVILLE POSTMASTER, Louisville			
To 5 M No. 5 3c Envelopes at 31.96 per M.....	159.80		
To 1 M No. 5 2c Envelopes at 21.69 per M.....	21.96		
To 2 1-2 No. 8 3c Envelopes at 32.88 per M.....	82.20		
To 500 No. 9 3c Envelopes at 33.16 per M.....	16.58		
	280.54		
Oct. 31—Voucher.....			500.00
McDOWELL FUND KENTUCKY STATE MEDICAL ASSOCIATION, Louisville			
To appropriation for Apothecary Shop as set forth on pages 229 and 230 of the			
Minutes of the House of Delegates of the 1939 Meeting transferred to McDowell			
Fund Account from Checking Account, Kentucky State Medical Association...	500.00		
Nov. 29—Voucher Check No. 60.....			235.00
A. T. McCORMACK, M. D., Louisville			
To November salary, Secretary.....	135.00		
To Incidental expenses.....	100.00		
	235.00		
Nov. 29—Voucher Check No. 61.....			90.00
L. H. SOUTH, M. D., Louisville			
To November salary, Business Manager.....	90.00		
Nov. 29—Voucher Check No. 62.....			90.00
J. F. BLACKERBY, Louisville			
To November services rendered Committee on Public Policy.....	90.00		
Nov. 29—Voucher Check No. 63.....			75.00
ELVA GRANT, Louisville			
To November salary, Bookkeeper.....	75.00		
Nov. 29—Voucher Check No. 64.....			50.00
ELIZABETH CONKLING, Louisville			
To November salary, Stenographer for Medico-Legal Committee.....	50.00		
Nov. 29—Voucher Check No. 65.....			42.52
LOUISE C. MOREL, Louisville			
To traveling expenses, Supervisor, W. P. A. Medical Research Project, as follows:			
Lexington and Frankfort, 9-18-22-39.....	23.47		
Lexington 9, 27-30, 39.....	19.05		
	42.52		

Nov. 29—Voucher Check No. 66.....		\$2.50
J. H. BLACKBURN, M. D., Bowling Green		
To reimbursement for room, 9-14-39, Helm Hotel, Bowling Green, for Roger I.		
Lee, M. D., Boston, Mass., Guest Speaker at State Meeting	2.50	
Nov. 29—Voucher Check No. 67.....		39.75
H. K. BUTTTERMORE, M. D., Liggett		
To expense as Councilor, 11th District.....	39.75	
Nov. 29—Voucher Check No. 68.....		50.00
JUDGE REX LOGAN, F. M., Bowling Green		
To postage for Journal.....	50.00	
Nov. 29—Voucher Check No. 69.....		45.00
HELM HOTEL, Bowling Green		
To 75 luncheons at 60c, 9-13-39, for State Meeting.....	45.00	
Nov. 29—Voucher Check No. 70.....		1.65
RAILWAY EXPRESS AGENCY, Louisville		
To express from Bowling Green, 10-17-39.....	.55	
To express to Bowling Green, 10-17-39.....	1.10	
	<u>1.65</u>	
Nov. 29—Voucher Check No 71.....		8.63
BUSH-KREBS CO., Louisville		
To 1 sq. HT X-ray View.....	3.68	
To 1 sq. HT of Dr. Louis Frank for McDowell Supplement (McDowell Fund Expense)	4.95	
	<u>8.63</u>	
Nov. 29—Voucher Check No. 72.....		44.00
SCHUMAN'S, New York, N. Y.		
To 1 copy of Eclectic Repertory, Volume IX, 1819.....	32.00	
To 1 copy of Genito-Urinary Organs, N. Y., 1857, by Dr. Alban Goldsmith.....	12.00	
	<u>(McDowell Fund Expense) 44.00</u>	
Nov. 29—Voucher Check No. 73.....		62.00
PREMIER PAPER COMPANY, Louisville		
To 25 M No. 6 3-4 Sub. Premier Regular Envelopes at 89c.....	22.25	
To 25 M No. 10 Sub. 24 lb. Premier Regular Envelopes at 1.59.....	39.75	
	<u>62.00</u>	
Nov. 29—Voucher Check No.74.....		586.47
THE MASTER REPORTING COMPANY, Inc., New York, N. Y.		
To reporting meeting of the Kentucky State Medical Association, September 11-14,		
1939, at Bowling Green:		
House of Delegates:		
740 folios original transcript at 30c.....	222.00	
740 folios carbon copies at 4c.....	29.60	
Opening Session:		
40 folios original transcript at 30c.....	12.00	
40 folios carbon copies at 4c.....	1.60	
Abridging Scientific Session—8 at 5.00.....	40.00	
	<u>305.20</u>	
Traveling Expenses of Reporter.....	79.15	
Express Charges	1.00	
	<u>385.35</u>	
Scientific Session.		
570-4 folios original transcript at 30.....	171.12	
570-4 folios carbon copies at 4c.....	22.82	
	<u>193.94</u>	
Express Charges	1.18	
	<u>195.12</u>	
	<u>580.47</u>	
Nov. 29—Voucher Check No. 75.....		4.65
SOUTHERN BELL TELEPHONE & TELEGRAPH CO., Louisville		
To long distance calls.....	4.65	
Nov. 29—Voucher Check No. 76.....		520.00
THE TIMES-JOURNAL PUBLISHING CO., Bowling Green		
To 8 pages extra November Issue.....	56.00	
To 4 pages extra Supplement to November Issue.....	48.00	
To Postage (Supplement, Etc.).....	5.00	109.00
	<u>480.00</u>	
To 2330 December Issue—68 pages.....	480.00	
To Index—6 pt.....	6.00	
	<u>486.00</u>	
Less 16th payment on note of 1,400.00.....	75.00	411.00
		<u>520.00</u>
Dec. 21—Voucher Check No. 77.....		140.75
A. T. McCORMACK, M. D., Louisville		
To December salary, Secretary.....	135.00	
To Incidental expenses	5.75	
	<u>140.75</u>	
Dec. 21—Voucher Check No. 78.....		90.00
L. H. SOUTH, M. D., Louisville		
To December salary, Business Manager.....	90.00	
Dec. 21—Voucher Check No. 79.....		90.00
J. F. BLACKERBY, Louisville		
To December services rendered Committee on Public Policy	90.00	
Dec. 21—Voucher Check No. 80.....		65.00
ELVA GRANT, Louisville		
To December salary, Bookkeeper.....	65.00	
Dec. 21—Voucher Check No. 81.....		50.00
ELIZABETH CONKLING, Louisville		
To December salary, Stenographer for Medico-Legal Committee.....	50.00	

Dec. 21—Voucher Check No. 82.....		\$50.00
JUDGE REX LOGAN, P. M., Bowling Green		
To postage for Journal.....	50.00	
Dec. 21—Voucher Check No. 83.....		43.29
LOUISE C. MOREL, Louisville		
To traveling expenses, Supervisor, W. P. A. Medical Research Project, as follows:		
Bowling Green, 10-16-18-39.....	17.02	
Frankfort and Lexington, 11-1-3-39.....	13.91	
Lexington, 11-8-10-39.....	12.36	
	<u>43.29</u>	
Dec. 21—Voucher Check No. 84.....		2.30
SOUTHERN BELL TELEPHONE & TELEGRAPH CO., Louisville		
To long distance calls as follows:		
Bowling Green, 11-5, 11 & 14-39.....	2.30	
Dec. 21—Voucher Check No. 85.....		2.28
RAILWAY EXPRESS AGENCY, Louisville		
To express to Bowling Green, 11-16-39.....	1.17	
To express from Bowling Green, 11-22-39.....	1.11	
	<u>2.28</u>	
Dec. 21—Voucher Check No. 86.....		18.43
LOUISVILLE POSTMASTER, Louisville		
To postage for November.....	18.43	
Dec. 21—Voucher Check No. 87.....		1.59
MAYME SULLIVAN, Louisville		
To reimbursement for the following:		
Drayage on envelopes, from Post Office, 11-21-39.....	.30	
Express on Journals from Bowling Green, 11-25-39.....	1.29	
	<u>1.59</u>	
Dec. 21—Voucher Check No. 88.....		375.00
TIMES-JOURNAL PUBLISHING CO., Bowling Green		
To account of January Journal.....	450.00	
Less 17th payment on note of 1,400.00.....	75.00	
	<u>375.00</u>	
Dec. 21—Voucher Check No. 89.....		5,300.00
A. T. McCORMACK, M. D., Louisville		
To reimbursement for rent on building located at 620 S. Third St., Louisville:		
Balance on principal note due 9-1-40.....	3,771.69	
To apply on principal note due 9-1-41.....	694.78	
	<u>4,466.47</u>	
Interest, 11-1-39 through 1-20-40.....	833.53	
	<u>5,300.00</u>	
1840		
Jan. 31—Voucher Check No. 90.....		135.00
A. T. McCORMACK, M. D., Louisville		
To January salary, Secretary.....	135.00	
Jan. 31—Voucher Check No. 91.....		90.00
L. H. SOUTH, M. D., Louisville		
To January salary, Business Manager.....	90.00	
Jan. 31—Voucher Check No. 92.....		90.00
J. F. BLACKERBY, Louisville		
To January services rendered Committee on Public Policy.....	90.00	
Jan. 31—Voucher Check No. 93.....		65.00
ELVA GRANT, Louisville		
To January salary, Bookkeeper.....	65.00	
Jan. 31—Voucher Check No. 94.....		50.00
ELIZABETH CONKLING, Louisville		
To January salary, Stenographer for Medico-Legal Committee.....	50.00	
Jan. 31—Voucher Check No. 95.....		150.00
CURTIS & CURTIS, Attorneys, Louisville		
To legal services rendered, 7-1—12-30-39.....	150.00	
Jan. 31—Voucher Check No. 96.....		100.00
DYSARD and DYSARD, Ashland		
To legal services in case Logan Ison vs. J. Watts Stovall, M. D.....	100.00	
Jan. 31—Voucher Check No. 97.....		4.00
MAYME SULLIVAN, Louisville		
To reimbursement for the following:		
Long distance calls Bowling Green, 11-2& 3-39, for Journal.....	1.70	
Telegrams to Boston, 11-11-39, for Association.....	.60	
Telegrams to Chicago (2), 11-14-39, for Association.....	1.23	
Telegrams to Boston, 11-29-39, for Association.....	.47	
	<u>4.00</u>	
Jan. 31—Voucher Check No. 98.....		32.60
LOUISVILLE POSTMASTER, Louisville		
To postage for December.....	32.60	
Jan. 31—Voucher Check No. 99.....		4.25
SOUTHERN BELL TELEPHONE & TELEGRAPH CO., Louisville		
To long distance calls.....	4.25	
Jan. 31—Voucher Check No. 100.....		2.09
RAILWAY EXPRESS AGENCY, Louisville		
To express from Bowling Green, 12-16 & 19-39.....	.98	
To express to Bowling Green 12-19-39.....	1.11	
	<u>2.09</u>	
Jan. 31—Voucher Check No. 101.....		17.50
SCHUMAN'S, New York, N. Y.		
To 1 Sims. on Ovariectomy, N. Y., 1873—Presentation Copy (McDowell Fund Expense).....	17.50	

Jan. 31—Voucher Check No. 102.....			\$416.50
TIMES-JOURNAL PUBLISHING CO., Bowling Green			
To 2,300 January Issue—72 pages.....	504.00		
To extra postage for Supplement.....	2.50		
	<u>506.50</u>		
Less 17th payment on note of 1,400.00.....	75.00		
	<u>431.50</u>		
Less credit by Ok. No. 83 dated 12-21-39 (450.00 less 75.00)....	375.00		
	<u>56.50</u>		
Balance due on January Issue.....	56.50		
Less amount deducted for delay of January Issue	75.00		
		-18.50	
To 2,325 February Issue—72 pages.....	510.00		
Less 18th payment on note of 1,400.00.....	75.00	435.00	
		<u>416.50</u>	
Jan. 31—Voucher Check No. 103.....			20.50
LOUISE MOREL Louisville			
To traveling expenses, Supervisor, W. P. A. Medical Research Project, as follows:			
Lexington, 11-28 & 29-39.....	7.50		
Lexington and Frankfort, 1-8, 9 & 10-40.....	13.00		
		<u>20.50</u>	
Jan. 31—Voucher Check No. 104.....			40.96
BUSH-KREBS CO., Louisville			
To 11 HT's Misc. X-ray Views—Single Column.....	41.80		
Less 2 per cent discount.....	.84		
		<u>40.96</u>	
Feb. 29—Voucher Check No. 105.....			135.00
A. T. McCORMACK, M. D., Louisville			
To February salary, Secretary.....	135.00		
Feb. 29—Voucher Check No. 106.....			90.00
L. H. SOUTH, M. D., Louisville			
To February salary, Business Manager.....	90.00		
Feb. 29—Voucher Check No. 107.....			90.00
J. F. BLACKERBY, Louisville			
To February services rendered Committee on Public Policy.....	90.00		
Feb. 29—Voucher Check No. 108.....			65.00
ELVA GRANT, Louisville			
To February salary, Bookkeeper.....	65.00		
Feb. 29—Voucher Check No. 109.....			50.00
ELIZABETH CONKLING, Louisville			
To February salary, Stenographer for Medico-Legal Committee	50.00		
Feb. 29—Voucher Check No. 110.....			5.97
LOUISVILLE POSTMASTER, Louisville			
To postage for January.....	5.97		
Feb. 29—Voucher Check No. 111.....			1.76
RAILWAY EXPRESS AGENCY, Louisville			
To express from Bowling Green, 1-15-40.....	.66		
To express to Bowling Green, 1-16-40.....	1.10		
		<u>1.76</u>	
Feb. 29—Voucher Check No. 112.....			8.25
SOUTHERN BELL TELEPHONE & TELEGRAPH CO., Louisville			
To long distance calls.....	8.25		
Feb. 29—Voucher Check No. 113.....			29.95
LOUISE MOREL, Louisville			
To traveling expenses, Supervisor W. F. A. Medical Research Project, as follows:			
Washington, D. C., (Hotel, meals and miscellaneous items).			
1-15-20-40 inclusive.....	21.60		
Cynthiana and Lexington 2-2 & 3-40.....	8.35		
		<u>29.95</u>	
Feb. 29—Voucher Check No. 114.....			2.98
MRS. LOTTIE McDOWELL, Danville			
To reimbursement for express on chair for McDowell Home (McDowell Fund			
Expense)	2.98		
Feb. 29—Voucher Check No. 115.....			441.50
TIMES-JOURNAL PUBLISHING CO., Bowling Green			
To 2,325 March Issue—72 pages.....	510.00		
Less 19th payment on note of 1,400.00.....	75.00		
		<u>435.00</u>	
To extra work on cuts.....	1.50		
To tabular work and 6 point references.....	5.00	6.50	
		<u>441.50</u>	
Feb. 29—Voucher Check No. 116.....			2,000.00
A. T. McCORMACK, M. D., Louisville			
To reimbursement for rent on building located at 620 S. Third St, Louisville:			
Interest through 2-29-40 on balance of 6 notes amounting to 89,305.22.....	396.91		
To apply on principal note due 9-1-41.....	1,603.09		
		<u>2,000.00</u>	
Mar. 30—Voucher Check No. 117.....			135.00
A. T. McCORMACK, M. D., Louisville			
To March salary, Secretary.....	135.00		
Mar. 30—Voucher Check No. 118.....			90.00
L. H. SOUTH, M. D., Louisville			
To March salary, Business Manager.....	90.00		
Mar. 30—Voucher Check No. 119.....			90.00
J. F. BLACKERBY, Louisville			
To March services rendered Committee on Public Policy.....	90.00		

Mar. 30—Voucher Check No. 120.....			\$65.00
ELVA GRANT, Louisville			
To March salary, Bookkeeper.....	65.00		
Mar. 30—Voucher Check No. 121.....			50.00
ELIZABETH CONKLING, Louisville			
To March salary, Stenographer for Medico-Legal Committee	50.00		
Mar. 30—Voucher Check No. 122.....			207.89
LOUISVILLE POSTMASTER, Louisville			
To postage for February.....	207.89		
Mar. 30—Voucher Check No. 123.....			155.70
PREMIER PAPER COMPANY, Louisville			
To 30 M 8 3-4x11 1-4 24 lb. Catalog O. E Envelopes—Ungummed			
Flaps at 5.19	155.70		
Mar. 30—Voucher Check No. 124.....			2.62
RAILWAY EXPRESS AGENCY, Louisville			
To express from Bowling Green, 2-7-40.....	.79		
To express to Bowling Green, 2-17-40.....	1.10	1.89	
To express to New York, N. Y., 2-27-40.... (McDowell Fund Expense).....	.73		
		2.62	
Mar. 30—Voucher Check No. 125.....			7.20
SOUTHERN BELL TELEPHONE & TELEGRAPH, CO. Louisville			
To long distance calls.....	7.20		
Mar. 30—Voucher Check No. 126.....			11.65
LOUISE MOREL, Louisville			
To traveling expenses, Supervisor, W. F. A. Medical Research Project, as follows:			
Lexington, 3-6 & 7-40.....	11.65		
Mar. 30—Voucher Check No. 127.....			461.67
TIMES-JOURNAL PUBLISHING CO., Bowling Green			
To 2,350 April Issue—72 pages.....	512.00		
Less 20th payment on note of 1,400.00.....	50.33		
		461.67	
Apr. 30—Voucher Check No. 128.....			135.00
A. T. McCORMACK, M. D., Louisville			
To April salary, Secretary.....	135.00		
Apr. 30—Voucher Check No. 129.....			90.00
L. H. SOUTH, M. D. Louisville			
To April salary, Business Manager.....	90.00		
Apr. 30—Voucher Check No. 130.....			90.00
J. F. BLACKERBY, Louisville			
To April services rendered Committee on Public Policy.....	90.00		
Apr. 30—Voucher Check No. 131.....			68.00
ELVA GRANT, Louisville			
To April salary, Bookkeeper.....	65.00		
To trip from Frankfort to Lexington and return to Frankfort, 2-29-40, to arrange			
for 1940 State Meeting.....	3.00		
		68.00	
Apr. 30—Voucher Check No. 132.....			50.00
ELIZABETH CONKLING, Louisville			
To April salary Stenographer for Medico-Legal Committee.....	50.00		
Apr. 30—Voucher Check No. 133.....			51.53
LOUISE MOREL, Louisville			
To traveling expenses, Supervisor, W. F. A. Medical Research Project, as follows:			
Lexington and return, 3-6-8-40, inclusive.....	11.65		
Danville, Lexington, Cincinnati Ohio and return, 3-17-21-40,			
inclusive	28.68	40.33	
To reimbursement for photostats and biblio-film for book, "Medicine and Its			
Development in Kentucky", as follows:			
Photo Transylvania Diploma 1808.....	.15		
Photo-16 sheets Spillman Memoirs	2.40		
Photo-19 sheets Dr. Brown letters.....	2.85		
Photo-5 sheets Dr. Bell notebook.....	1.75		
Photo-1 sheet Kentucky School of Medicine.....	.35		
Photo-1 sheet Dr. Weisiger "Paris Card".....	.35		
Photo-1 Biblio-film, Washington, D. C.....	.50		
Photo-16 sheets Dr. Dudley account book, unknown account book			
and Drake letters.....	2.85	11.20	
		51.53	
Apr. 30—Voucher Check No. 134.....			50.00
JUDGE REX LOGAN, F. M., Bowling Green			
To postage for Journal.....	50.00		
Apr. 30—Voucher Check No. 135.....			5.82
LOUISVILLE POSTMASTER, Louisville			
To postage for March.....	5.82		
Apr. 30—Voucher Check No. 136.....			12.50
AMERICAN SURETY COMPANY OF NEW YORK, New York N. Y.			
To Premium on Treasurer's Bond No. 433265 K for Amplias W. Davis, M. D.,			
Madisonville	12.50		
Apr. 30—Voucher Check No. 137.....			7.75
BUSH-KREBS CO., Louisville			
To 2 Sq. HT's Medical Illustrations.....	8.68		
		.93	
		7.75	
Apr. 30—Voucher Check No. 138.....			3.60
SOUTHERN BELL TELEPHONE & TELEGRAPH COMPANY, Louisville			
To long distance calls.....	3.60		
Apr. 30—Voucher Check No. 139.....			2.64
RAILWAY EXPRESS AGENCY, Louisville			
To express from Bowling Green, 3-6 & 16-40, for Journal.....	1.51		
To express to Bowling Green, 3-18-40 for Journal	1.13		
		2.64	

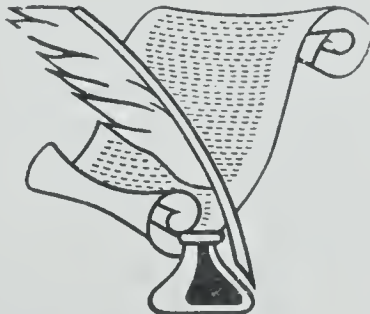
Apr. 30—Voucher Check No. 140.....	\$1.98
WESTERN UNION TELEGRAPH COMPANY, Louisville	
To telegrams for Association as follows:	
Owensboro, Lexington, Benton, Glasgow, and Ashland, 2-14-40.....	1.68
To Newport, 2-16-40.....	.30
	<u>1.98</u>
Apr. 30—Voucher Check No. 141.....	7.50
M. L. FICHTNER, Louisville	
To the following expense re: No. 263,269—Charles Steinmetz &c. v. Heman Humphrey:	
Deposition of Mrs. Madlene Steinmetz, taken as if under-cross examination	
by defendant—17 pages at 40c per page.....	6.80
Carbon copy deposition of Dr. Heman Humphrey, taken as if under cross ex-	
amination by plaintiff—7 pages at 10c per page .....	.70
	<u>7.50</u>
Apr. 30—Voucher Check No. 142.....	519.00
TIMES-JOURNAL PUBLISHING CO., Bowling Green	
To 2,400 May Issue—72 pages including 6 pt. references	519.00
Apr. 30—Voucher Check No. 143.....	26.00
PREMIER PAPER COMPANY, Louisville	
To 25 M No. 6 3-4 Sub. 24 lb. Premier Regular Envelopes at 1.04.....	26.00
May 31—Voucher Check No. 144.....	135.00
A. T. McCORMACK, M. D., Louisville	
To May salary, Secretary.....	135.00
May 31—Voucher Check No. 145.....	102.25
L. H. SOUTH M. D., Louisville	
To May salary, Business Manager.....	90.00
To reimbursement for postage, as follows:	
Mailing proof	1.05
Christian County Medical Society Meeting, 5-21-40	5.20
Inter-County Medical Society Meeting, 5-24-40	6.00
	<u>12.25</u>
	102.25
May 31—Voucher Check No. 146.....	90.00
J F. BLACKERBY, Louisville	
To May services rendered Committee on Public Policy	90.00
May 31—Voucher Check No. 147.....	73.90
ELVA GRANT, Louisville	
To May salary, Bookkeeper.....	65.00
To trip to Lexington and return 5-15-40 to arrange for 1940 State Meeting..	8.90
	<u>73.90</u>
May 31—Voucher Check No. 148.....	50.00
ELIZABETH CONKLING Louisville	
To May salary, Stenographer for Medico-Legal Committee	50.00
May 31—Voucher Check No. 149.....	50.00
CURTIS & CURTIS, Attorneys, Louisville	
To services rendered in case Stockhoff vs. Enfield	50.00
May 31—Voucher Check No. 150.....	104.37
LOUISVILLE POSTMASTER, Louisville	
To postage for April, as follows:	
Kentucky State Medical Association and Journal	7.39
Book, "Medicine and Its Development in Kentucky"	96.98
	<u>104.37</u>
May 31—Voucher Check No. 151.....	7.50
SCHUMAN'S, New York City	
To 1 copy of "Case of Diseased Ovarium," Ezra Michener and 1 copy of "On	
Ovarian Disease," Thos. Henderson (Both in Eclectic Repertory, Vol. III,	
Philadelphia, 1818) (McDowell Fund Expense)	7.50
May 31—Voucher Check No. 152.....	5.30
PREMIER PAPER COMPANY, Louisville	
To 1 ream 17x22 No. 415 Gummed Paper (Stickers for mailing "Medicine and Its	
Development In Kentucky"	5.30
May 31—Voucher Check No. 153.....	10.00
KENNETH KENEY, London	
To making 1 cherry table (McDowell Fund Expense)	10.00
May 31—Voucher Check No. 154.....	2.15
RAILWAY EXPRESS AGENCY, Louisville	
To express for Journal, as follows:	
From Bowling Green, 4-11, 20 & 27-40.....	1.26
To Bowling Green, 4-19-40.....	.89
	<u>2.15</u>
May 31—Voucher Check No. 155.....	102.49
THE STANDARD FRINTING CO., Louisville	
To binding Kentucky Medical Journals for 1939	2.50
To 10 M Special Order Blanks for Book, "Medicine and Its Development in Kentucky"	
as follows:	
2 M Blanks.....	22.50
8 M Additional at 9.00 per M.....	72.00
	94.50
To Postage Due Charges on "Medicine and Its Development in Kentucky"	5.49
	<u>99.99</u>
	102.49
May 31—Voucher Check No. 156.....	1.90
SOUTHERN BELL TELEPHONE & TELEGRAPH COMPANY, Louisville	
To long distance calls.....	1.90
May 31—Voucher Check No. 157.....	3.85
BUSH-KREBS CO., Louisville	
To 1 Sq. HT Illustration of Hands.....	3.85
May 31—Voucher Check No. 158.....	4.60
LOUISE MOREL, Louisville	
To reimbursement for the following for book, "Medicine and Its Development in Kentucky;"	
Photograph of Ephraim McDowell Library (Simmons, Danville).....	4.00
To Conveying envelopes to University to be addressed .....	.60
	<u>4.60</u>

May 31—Voucher Check No. 159.....	\$510.00
TIMES-JOURNAL PUBLISHING CO., Bowling Green	
To 2,250 June Issue—74 pages.....	510.00
June 29—Voucher Check No. 160.....	135.00
A. T. McCORMACK, M. D., Louisville	
To June salary, Secretary.....	135.00
June 29—Voucher Check No. 161.....	90.00
L. H. SOUTH, M. D., Louisville	
To June salary, Business Manager.....	90.00
June 29—Voucher Check No. 162.....	90.00
J. F. BLACKERBY, Louisville	
To June services rendered Committee on Public Policy	90.00
June 29—Voucher Check No. 163.....	65.00
ELVA GRANT Louisville	
To June salary Bookkeeper.....	65.00
June 29—Voucher Check No. 164.....	50.00
ELIZABETH CONKLING, Louisville	
To June salary, Stenographer for Medico-Legal Committee	50.00
June 29—Voucher Check No. 165.....	9.22
LOUISVILLE POSTMASTER, Louisville	
To postage for May	9.22
June 29—Voucher Check No. 166.....	29.90
LOUISE MOREL, Louisville	
To traveling expenses, Supervisor, W. P. A. Medical Research Project, as follows:	
Milwaukee and Madison, Wis., and Chicago, Ill., 5-24-29-40	29.90
June 29—Voucher Check No. 167.....	2.40
STATE DEPARTMENT OF HEALTH, Louisville	
To reimbursement for express for Journal.....	2.40
June 29—Voucher Check No. 168.....	6.85
STATE DEPARTMENT OF HEALTH, Louisville	
To reimbursement for long distance calls.....	6.85
June 29 Voucher Check No 169.....	54.00
COURIER-JOURNAL JOB PRINTING CO., Louisville	
To 4 Membership Cards, 4x2 1-2—2 M 1941 and 2 M 1942	54.00
June 29—Voucher Check No. 170.....	20.65
WOMAN'S AUXILIARY KENTUCKY STATE MEDICAL ASSOCIATION, Louisville	
To 25 per cent commission on advertisement amounting to 82.60.....	20.65
June 29—Voucher Check No. 171.....	494.25
TIMES-JOURNAL PUBLISHING CO., Bowling Green	
To 2,250 July Issue—72 pages.....	498.00
To 6 pt.	5.00
	503.00
Less 35 errors at 25c each.....	8.75
	494.25
June 29—Voucher Check No. 172.....	3,200.00
A. T. McCORMACK, M. D., Louisville	
To reimbursement for rent on building located at 620 S. Third Street, Louisville:	
Interest through 7-16-40 on balance of 6 notes amounting to \$87,702.13....	1,325.28
To apply on principal note due 9-1-41.....	1,874.72
	3,200.00
July 31—Voucher Check No. 173.....	135.00
A. T. McCORMACK, M. D., Louisville	
To July salary, Secretary.....	135.00
July 31—Voucher Check No. 174.....	96.50
L. H. SOUTH, M. D., Louisville	
To July salary Business Manager.....	90.00
To reimbursement for postage for mailing out programs	6.50
	96.50
July 31—Voucher Check No. 175.....	30.00
J. F. BLACKERBY Louisville	
To July services rendered Committee on Public Policy	30.00
July 31—Voucher Check No. 176.....	65.00
ELVA GRANT Louisville	
To July salary, Bookkeeper.....	65.00
July 31—Voucher Check No. 177.....	50.00
ELIZABETH CONKLING, Louisville	
To July salary, Stenographer for Medico-Legal Committee	50.00
July 31—Voucher Check No. 178.....	42.55
LOUISVILLE POSTMASTER, Louisville	
To postage for June	32.69
To postage, July 1-17 1940, inclusive.....	9.86
	42.55
July 31—Voucher Check No. 179.....	50.00
JUDGE REX LOGAN, P. M., Bowling Green	
To postage for Journal.....	50.00
July 31—Voucher Check No. 180.....	2.10
STATE DEPARTMENT OF HEALTH, Louisville	
To reimbursement for expenses for Journal.....	2.10
July 31—Voucher Check No. 181.....	4.50
STATE DEPARTMENT OF HEALTH, Louisville	
To reimbursement for long distance telephone calls	4.50
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Respectfully submitted,,
A. W. DAVIS, Treasurer



COMMON SENSE IN HANDLING BEHAVIOR PROBLEMS OF CHILDHOOD

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Lexington

If a child were brought to a physician complaining of, say, "tonsillitis," and at the same time showed signs of congenital syphilis, no one would deny that the physician would be neglecting his duty and his responsibility to that child by treating only the complaint. And yet most of us are guilty, on occasions at least, of neglecting an obligation just as binding and just as important to the future well-being of the individual. I refer to those trends and habits of childhood which, unless corrected, will lead to social and emotional mal-adjustments. Such mal-adjustments are never completely out-grown. Some carry over into adult life and lay at least the ground work for the instability, hypochondriasis and neuroses which hamper the efficient and happy performance of every day life.

As Parks says in the preface to Leo Kanner's excellent book, "Child Psychiatry," the responsibility for the early recognition of these trends, and for their correction before they become habits, lies squarely upon the shoulders of the child's physician, be he pediatrician or general practitioner. He alone has the opportunity to follow the development of the child, and while advising the parents regarding feeding, clothing, schooling, teeth, prophylaxis against disease, etc.—he can also give them advice and suggestions which serve as prophylaxis and therapy against conditions which may be more of a tragedy to the patient than pneumonia or tuberculosis.

Adolf Meyers has long emphasized what he calls the "psycho-biological integration" of the individual. This is simply a term to express the intimate relationship between the so-called "mental" and "physical" functions of the human being. Two outstanding examples of this inter-relationship are the effect of worry on a peptic ulcer, and the personality changes which accompany endocrine disturbances. That the "physical" and "mental" aspects of the individual are so interdependent as to be inseparable is now well recognized. So, too, are the physician's responsibilities to these "physical" and "mental" aspects inseparable. If he treats one, he is equally responsible for the other.

The purpose of this paper is not to make

a plea for more Child Guidance Clinics—valuable as these certainly are. It would be a physical impossibility to have sufficient child guidance clinics or trained specialists in Child Psychiatry to cope with the minor problems which occur during the childhood of every individual. Nor is such a set-up desirable, even if it were possible. The very term, "Child Psychiatry" is, in itself, sufficient to scare away many parents. And on several occasions I have heard doctors say that they not only lacked special training in this field, but also the time, and perhaps the inclination, to take such special work. The point I wish to emphasize is that such training is unnecessary for the average physician with average training. With a few basic principles in mind, coupled with a little patience and common sense, he can adequately handle the majority of the behavior and personality problems of childhood. In many instances, he can even prevent their occurrence. The occurrence of genuine psychiatric conditions during childhood is so rare that many of us will not encounter more than 4 or 5 during our lives. In contrast to this, the occurrence of behavior problems, including trends which are likely to become problems, is so frequent that any physician who sees children at all will encounter them almost daily. And we must seek, as in purely physical complaints, to discover and to remove as far as possible the source of the trouble.

It is not within the scope of this paper to present the treatment for even the commoner behavior problems which occur during childhood. Worthy of consideration, however, are a few of the basic concepts on which must be founded any attempt at correction of these problems.

Of first importance is the necessity for a complete and accurate appraisal of the physical condition, and the direction of all possible steps to correct any abnormalities. Special attention should be paid to acute and chronic infections, hearing, eyesight, nutrition, etc. A child with frequent sore throats, or hook-worm infection, or tuberculosis could hardly be expected to be as happy, as obedient, or as active, as would be the case if these conditions were removed. A child with a urinary infection and local irritation could hardly be blamed for masturbation or enuresis.

It may be said here that care should be exercised not to exaggerate in the minds of the patient or his parents the importance of minor items. Many a child has been unjustifiably relegated to the

invalid category by a careless remark about a functional heart murmur, when an accurate diagnosis and a full explanation would have been accepted and understood by both patient and parents.

Attention should be paid to a reasonable routine for the child, which should include proper eating and elimination habits, sufficient fresh air and exercise, and enough sleep, if possible, in a bed by himself.

I cannot emphasize too strongly the importance of a careful inquiry into the child's past history. The parents and the child are best interviewed separately, as each will talk much more freely away from the other. The history should include, in addition to the usual items, an understanding of the parents, school, playmates and other intimate contacts, together with an appraisal of their personalities. The emotional situations which arise and the child's adjustment or lack of it should be noted. The child's realization of his problem and his opinion of it are important. The time used in sizing up the situation will be well spent. This information and the generous use of common sense will be the starting point of successful handling.

Let it be said that there is nothing mysterious about the average child, nor for that matter, most of those above or below average. Children are really very similar to adults. Their imagination is much more vivid. They are more immature, and more intense in all they do. But they need the same things, they crave the same things, and they dislike the same things.

A child hates to be "different." He hates clothes that are different. He hates his privileges and restrictions to be different. He hates to be a baby. He likes to grow up and gradually become at least partially independent. When a Mother does not want her baby to grow up—she may keep him "tied to her apron strings" and hold him back. As a result, he may have poor appetite, sleep poorly, be cross and disobedient, etc. This type of problem is probably the most satisfactory to treat, as it usually responds rapidly to duties and privileges more suitable to the child's age.

Inconsistency, on the part of the parents or the physician, is an item which may be a great handicap. The child is bewildered and cannot understand it if he is allowed to do something one time, and punished for the same action at another. He cannot understand it if he is told the truth part of the time and what is not true the rest of the time. Parents and grand-

parents whose attitudes toward the child are "at odds" produce the same results. He is trying to learn, and he does not know what to expect. Any confidence and trust he has built up is shaken and rebuilding it is harder than ever.

Another point is that by obtaining the cooperation of the child, much more can be accomplished. He will follow instructions, obey, and cooperate better, if he "wants to" do it rather than if he "has to." Physician and parents will find this equally true. The old saying "you can lead a horse to water but you can't make him drink" might just as well have been worded "you can give a child his milk but you can't make him drink it." If you don't believe it, stand behind any normal child who is eating and drinking well, and see how long it takes him to stop if he is forced and nagged. The only way to get a poor eater to eat is to make him want to, and the best way to do that is to get him hungry. This entails a strict routine of no food between meals—no matter what the child may do. It necessitates a limited amount of time for meals after which food is removed regardless of tears or screams. It means small servings and no comment on the eating or lack of it. And most of all it means patience to stick to the plan until the child gets hungry, which he will. When he does, he will eat, for no well child ever starved to death with food before it. He will eat because he wants to, but not because someone wants to make him.

The same can be said of enuresis and many other problems. Rewards for achievement and recognition of success, but overlooking lack of success, etc., may be of great help in making him want to stop. Punishment, bribes and shaming will usually result in failure. When the child wants to stop, the battle is half won.

As in the adult, the child craves a feeling of security. This is not limited to food, clothing, and shelter, but is even more evident in his desire for the security of his position in the affections of his parents and his associates. This is one of the strongest forces in determining the actions of a child, good or bad, and may be used to establish traits and habits by the parents.

The intense dislike and occasionally dangerous antagonism toward a newly arrived brother or sister is usually due to jealousy, resulting from a feeling that the new-comer is usurping the child's position, and is getting the attention and affection which, he feels, are rightly his. If parents are careful to see that the older child is shown his share of the affection, and is

given an interest in the baby—perhaps by having him or her “help” with such minor duties as he can easily and safely perform—then such an attitude is usually prevented, or if it has developed, it will usually disappear.

Fears and bad dreams can frequently be traced to some certain incident or individual. It may be a story about a bad automobile wreck, or the “policeman who’ll get you,” or the “doctor who’ll cut your ears off,” or a family situation. If we know the full story, even the smaller children are subject to reasoning when combined with tact, and proof that their fears or worries are exaggerated or unfounded. Neglected, these fears become deep seated and an increasing source of trouble.

A child naturally deserves approval and recognition of success or proper effort in the right direction. Such approval, freely and sincerely expressed, though not overdone, will go a long way toward making a child do his part, whether it be in learning to dress himself, in his duties about the house, or in school. If such approval is not obtained from adults, he may seek approval from his contemporaries, indulging in such deeds of daring as breaking windows, stealing from fruit stalls, etc. Not infrequently a child has been known to steal in order to be able to give presents to members of his “gang,” so that for the moment, at least, he may claim the spot light of their approval.

As much as he wants approval, the child’s craving for attention is stronger. If he is unable to get either approval or attention by honest effort in the approved direction, he will use any means at his command. If it works, he will stick to it, and if it doesn’t, he will abandon it for other tactics. Many a young child tries to handle a forbidden object in order to hear his Mother say “Don’t,” simply because she says very little else. Temper tantrums are almost entirely on this basis, and if they fail to get the desired reaction, including a lot of attention, they usually cease. Teasing or fighting other children is also frequently based on a bid for attention or resentment of lack of it.

Poor school work is a frequent complaint, and may be due to any one of several causes. Poor vision or hearing may be responsible, and should be looked for. More frequently the ambitions of the parents exceed the ability of the child, and if he is driven constantly, other difficulties may also appear. When the task is beyond his ability—he may give up and quit. Tics, stuttering, crying spells, or bad

dreams may ensue. The best way to estimate the child’s mentality is by determining the Intelligence Quotient, preferably with the Stanford Revision of the Binet-Simon test. To satisfactorily give this test, a certain amount of special training and special equipment are necessary. Desirable as this may be, the average physician can dispense with it, and by other means is usually able to estimate the approximate mental equipment. Mental deficiency, even mild, may show up in poor school work, enuresis, or innumerable other problems. Adjusting the requirements to the child’s ability is the logical procedure.

Children with superior intelligence may also show poor school work. This may be because their task is so easy for them that it is uninteresting, and their minds are left idle to wander. It is best to keep the child’s mind busy. Frequently, it is better to give such added work as will interest the child—say perhaps drawing, dancing, or music, rather than have him skip a grade. Here he is thrown with a group older than himself, and his relation to his companions is changed. Where before he was a leader, or at least on equal footing, he is now the “baby.” Consciously or unconsciously, he feels his position is lowered. An equally important source of such insecurity is frequent changes of residence or school. The child is always having to adjust. He never really becomes one of the gang. He is always the new-comer. Reactions to such a set-up are varied. A careful look into the background of a behavior problem may show just such a picture.

It is well to bear in mind that the purpose of education, whether in school or at home, is to prepare the individual for adult life. The pampered child, who is allowed to have little respect for the feelings or property of others, and to always get what he wants, will find he is in a sadly different world when he grows up. It is unfair to him to let him believe that his every wish can be had for the asking, and that disappointments never come without bountiful compensations. He should be learning to stand on his own feet, instead of behind the sheltering though misguided kindness of his parents.

Sooner or later, the child must learn respect for authority, including the parents’ rules, the laws of our nation, and the laws of common decency and of the society with which he will have to live. The sooner he learns this the better. At times, punishment will be necessary. The use of corporal punishment cannot be dispensed with, but it is well to remember that it need not be either frequent or brutal, and is best saved for the more serious offenses,

such as direct and intentional disobedience. Depriving a child of a desired privilege is often more effective than a spanking. The child must understand the parents' disapproval and why he is being punished, and associate it directly with the misdemeanor or it is worse than useless. For this reason, retribution should be immediate, or as nearly so as possible, and should be neither too mild nor too severe for the offense.

Simple reasoning and explanations are useful in handling disobedience. Again consistency is most important, and is frequently the hardest part for the parents. Spoiling is probably equally in evidence as a source of disobedience. Here the problem is with the parents. Usually they will accept a well-founded and tactful explanation of the situation. Their fault is over-kindness. If their intentions are properly directed, a great deal can be gained.

It must be remembered that children learn by three separate methods. The first two, trial and error, and instruction by others, are recognized. Frequently, however, we tend to overlook what is perhaps the most important — imitation. If the parents have bad table manners, the child cannot be blamed for imitating. If Mother makes a face when pouring the cod liver oil, the child will do likewise and a struggle ensues. If Grandmother always has pains, Mary is likely to have some too. If Father stutters, or has a tic, this too may be imitated by the child. If Mother is afraid of the dark or lightning, it is likely that Sonny will be too.

Frequently, then, the trouble is not with the child at all, but with his parents, and their method of handling him. Children require careful handling, but with parents all the tact at your command will be necessary. Having discussed the situation, if you can let the Mother think the discovery of the trouble and the plan of treatment are at least partly hers, it is much more likely to be carried out.

I have briefly reviewed a few of the basic factors which help determine the personality of the child, and an approach to the handling of personality disturbances. I make no claim to originality in the foregoing discussion. The sources are largely well known, and are so varied as to prevent acknowledgement.

SUMMARY

It is the physician's responsibility to treat the personality disturbances of childhood as fully and carefully as he does the acute infections.

There is nothing mysterious about the child. Bearing certain basic factors in mind, a carefully taken history noting

especially the home environment and the parents' attitudes, plus a complete physical examination, will usually disclose the source of the trouble.

Special training on the part of the physician is not a prerequisite in handling a large majority of the behavior problems of childhood. With a little patience, the average physician can, by the generous use of common sense, discharge his responsibility to the child by helping correct its adjustment problems, and in doing so, will add greatly to the present and future well-being, not to say to the happiness, of the patient and his family.

ANEMIA AS A PUBLIC HEALTH PROBLEM

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It is the proud boast of medicine that its disciples are constantly on the alert for methods of eradicating and preventing disease. This is especially the altruistic object of physicians engaged in public health work. Anemia is not usually looked upon as of concern to the hygienist. However, in so far as it is often preventable, always disabling and usually accompanied by a high mortality, anemia is as much a public health problem as tuberculosis or the occupational diseases. A simple example illustrates this point. During the war years, 1917-1919, 17,000 men enlisted from Jefferson County. Of these, 268 died in service, including 109 who died of wounds or were killed in action. An estimated 890 were war casualties (killed in action, died of wounds, missing, disabled or wounded during service). During the peace years 1936 and 1937, 11,874 babies were born in Jefferson County. In Michigan anemia of pregnancy was found in 53.8 per cent of 158 unselected expectant mothers. If we assume that this type of anemia has a similar incidence in Kentucky, Jefferson County had 6,388 cases of anemia of pregnancy in 1936 and 1937, a casualty list seven times greater than that occasioned by the war. This is of still greater import to the community when it is considered that the child of an anemic mother is especially prone to develop anemia during infancy.

From the public health aspect, there are five important types of anemia. These are; (1) anemias of pregnancy; (2) idiopathic hypochromic anemia; (3) iron deficiency anemia of infancy; (4) anemia due to chronic infection, e. g. malaria; (5) ane-

mia due to chemical intoxication, e. g. lead and benzol poisoning. Methods for the prevention and control of chronic infection and chemical intoxication are so well known, that this paper will be limited to a discussion of the prophylaxis of only the first three types of anemia.

INCIDENCE

The anemias of pregnancy are common, but it is significant that we know considerably more about their causes than their incidence. Bethell, Gardiner and Mackinnon examined the blood of 158 unselected pregnant women. They found 85 (53.8 per cent) anemic. Forty-two had an iron deficiency anemia, twenty-four a diet deficiency anemia and nineteen a combined iron and diet deficiency anemia. In a previous study, Bethell found evidence of iron deficiency anemia in 20 and protein deficiency anemia in 18 of 66 "healthy" pregnant women. Mackey found an iron deficiency anemia in 30 of 50 nursing mothers and a similar incidence in young primiparae examined shortly before or after delivery. Bland, Goldstein and First examined 200 "normal" expectant mothers. They found a low erythrocyte count in 33.3 per cent during the first two trimesters of pregnancy, 55.7 per cent during the third trimester. There were subnormal hemoglobin values in 81.5 per cent of the group. Lyon found hypochromic anemia in more than 30 per cent of a group of pregnant women. Adair examined 1,176 women at a Chicago maternity hospital and reported anemia in 23 per cent. Davidson and his colleagues found an iron deficiency anemia in 48 per cent of a large group of parous women as contrasted with an incidence of 25 per cent in non-parous controls. Other investigators reported an incidence of this type of anemia of 22 and 18 per cent in England and New Zealand respectively. It is important to bear in mind that there may be a considerable degree of hemoglobin deficiency without obvious symptoms or signs. Therefore the actual incidence of anemia can be determined only by a systematic examination of the blood, repeated on several occasions. It may be stated with confidence that the incidence of hypochromic (iron deficiency) anemia of pregnancy in the United States varies between 30 and 60 per cent and averages close to fifty per cent. Less is known about the incidence of macrocytic than of hypochromic anemia of pregnancy. The studies of Bethell, who found it present in 18 of 66 and in 24 of 158 expectant mothers, suggest that it is by no means rare. It is especially apt to occur in the low income groups. Its inci-

dence is in part directly proportional to the duration, severity and extent of economic depressions. Both the hypochromic and the macrocytic anemia of pregnancy are more common and severe during the third trimester of pregnancy.

Idiopathic hypochromic anemia is common in middle aged women. The incidence of this type of anemia in the United States is not known, but it is undoubtedly far more frequent than commonly suspected. Davidson and his colleagues found this type of iron deficiency anemia in almost 50 per cent of a group of 455 women aged 18 to 55. On another occasion these investigators examined 3,500 individuals and found it present in 45 per cent of adult women. Mackay estimated that in London about two-thirds of the adult women in the low income brackets have an iron deficiency anemia. Bethell examined the blood of 50 "healthy" young women and found microcytosis, indicating latent or incipient anemia, in 14 (28 per cent). The incidence of this condition is undoubtedly less in the United States than in England or Scotland but is probably greater than the figure supplied by Bethell whose investigation was simply in the nature of a control study of the blood of young women. The condition probably has an important bearing on the frequency of hypochromic anemia of pregnancy. A woman with low iron reserves before pregnancy is especially apt to develop hemoglobin deficiency during gestation.

The iron deficiency anemia of infancy has been investigated especially in Great Britain by Mackey and by Davidson and co-workers. Mackay found it a common condition among children of the poorer classes in London. Davidson and colleagues observed it in 41 per cent of infants under two years, 32 per cent of children of pre-school age and 27 per cent of school children. No comparable studies are available from the United States and the actual frequency of this type of anemia is a matter of speculation. It seems reprehensible that no surveys have been made in this country, where we pride ourselves on our organization of medical care and child health clinics.

SIGNIFICANCE

From the public health point of view anemia is of considerable significance. This is especially true during periods of depression such as we have been experiencing during the past decade. The anemias under discussion often go undiagnosed because, although incapacitating, they are seldom accompanied by definite signs or symptoms. Vague digestive, nervous or mens-

trual disturbances are common. All too frequently the condition is labelled psychoneurosis. Irritability and lassitude are common symptoms, domestic unhappiness and inefficiency are frequent sequelae. It is perhaps poetic justice that men do not contact anemias of this type yet frequently suffer its effects. Irregular menstrual bleeding is frequent. Gray and Wintrobe found unexplained menorrhagia in 14 of 40 patients with idiopathic hypochromic anemia. This incapacitates the patient and affects her entire family. She is accused of nagging and of causing family discord. As already pointed out, latent idiopathic hypochromic anemia predisposes to frank hypochromic anemia during pregnancy and hypochromic anemia of pregnancy interferes with fetal storage of iron. The child of an anemic mother does not usually have an anemia at birth but develops an iron deficiency anemia about the third month. There isn't any way of arriving at an estimate of the sequelae of these anemias. Without question, the sequelae are frequent and serious.

PROPHYLAXIS

Much can be done to avoid the anemias under discussion. It is conceivable that, in a well ordered society, they may become as absolute as chlorosis. Methods of prevention should extend chiefly in the direction of educational campaigns. These should be directed at the medical profession as well as at the laity. A campaign of this nature should be planned as carefully as any major advertising project. It should aim at reaching those most intimately concerned. Physicians might well be asked: "Doctor, have you looked at her nails lately? Did you examine her blood carefully?" The lay campaign should emphasize the need for preventive measures—a diet rich in iron and adequate in its protein content. The appetite of an expectant mother is often disturbed and supplementary iron medication, in the form of ferrous sulphate is advisable in such patients. Emphasis should be placed on the harmful effects of the conditions sought to be eradicated and stress on the appropriate remedial measures. Families on relief are especially in need of information with regard to the purchase and preparation of foods having anti-anemic value. It would not entail much expense to issue with relief checks, brief pamphlets stressing the most economic food sources of anti-anemic factors. Appropriate slogans should be coined. Proof of the effectiveness of such a campaign is afforded by the fact that during recent years many tons of raisins have been sold by the display of just one

neat little slogan. The following foods are rich in available iron — liver, oatmeal, whole wheat, brown bread, figs, apricots, beans, lentils, peas, vegetables, eggs, fish, cocoa. Routine administration of ferrous sulphate, 0.2 gms. three times a day during pregnancy and to women complaining of excessive menstruation, is an excellent prophylactic and is inexpensive. An adequate supply of protein should be assumed during pregnancy. These simple measures would soon eradicate the anemias under discussion.

SUMMARY

Certain anemias are preventable and therefore of direct concern to the hygienist.

The incidence of iron deficiency anemia is high in women of middle age and during pregnancy and in infancy.

It is accompanied by indefinite symptoms and signs and productive of inefficiency and domestic strife.

Protein deficiency is another cause of anemia during pregnancy.

The significance of these anemias and methods for their control are discussed.

ROSACEA LIKE TUBERCULID OF LEWANDOWSKY

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Louisville.

Because of the difficulty experienced by general practitioners in correctly diagnosing some of the more unusual skin conditions, it seemed to me worth while to report the following case which presented this barrier to successful therapy for several years.

In many instances the rarer dermatoses do not resemble in any way the more common skin diseases, and in such cases the misinterpretation of physical findings does not occur. Here their bizarre manifestations at once set them apart as different and usually little time is wasted in their improper treatment.

On the other hand, where the presenting condition has no stigma of the unusual and in many ways simulates one of the more common skin disorders, it is easily conceivable that it might be treated without success for a varying length of time depending on the persistence and resourcefulness of the attending physician.

Such a case was seen by me a short while ago, and the patient gave a history of having been treated more or less constantly over a period of four years by several physicians. During that time the eruption, which began on her right cheek, gradually spread to both cheeks, chin,

neck and forehead. Various salves and lotions had been applied to the involved areas, but had not improved the condition in the slightest.

When Mrs. W. K. W. was first seen by me she appeared to be a healthy, well-developed and nourished white female thirty-three years of age. On casual first inspection there seemed to be a diffuse flushing of the skin of her face and upper neck, which on closer examination was seen to be made up of multiple discrete pin-point to pin-head sized rose-colored macules, and slightly elevated papules. In addition, over the flush areas of both cheeks there were numerous small superficial dilated capillaries and a fine dry exfoliation of the skin.

She gave no history of indigestion, constipation, foci of infection or menstrual disorder, but she did report that on one occasion, three months previously, an attack of extreme nervousness was associated with a definite flare-up and spread of the eruption.

There were no subjective symptoms of itching, burning or tenderness such as would have been expected with an acute dermatitis, nor were there visible any of the erythematous pustules nor any increased comedo formation as is generally present in rosacea. Also pressure with a glass slide over some of the larger papules did not cause their complete blanching, but there persisted tiny brown or yellowish-brown points in their centers.

The scalp appeared perfectly normal and free from scaling while the angles of the nose and post auricular regions did not show the itchy reddened patches of skin surmounted by yellowish greasy scales so typical of seborrheic dermatitis.

The eruption was most marked on the flush areas of both cheeks, but these areas were not sharply circumscribed, nor was there any involvement of the nose or atrophy or follicular plugging such as would have been expected with Lupus Erythematosus.

The picture presented was most unusual, and one that did not fit into the category of any of the above mentioned skin disorders. While I was examining the patient the possibility of such unusual skin diseases as acnitis, lupus miliaris disseminatus faciei, and the miliary sarcoid of Boeck came to my mind, but because of the chronicity of the disorder and the unusual picture it presented, I decided to remove a small area of involved skin for microscopic study before hazarding a final diagnosis.

Five days later Dr. A. J. Miller, head of the Pathological Department of the University of Louisville, reported that the small plug of excised skin presented little change in the epidermis, but in the corium there were several distinct foci in which the normal tissue had been destroyed. These areas presented circumscribed collections of epitheloid cells through which were scattered a number of giant cells. There were also many lymphocytes present, particularly in the margin of the lesions, but no central caseation could be demonstrated in any of the foci.

Dr. Miller reported a diagnosis of tuberculosis of the skin, and this, together with the history of the eruption and its clinical appearance, fitted in perfectly with the presenting diagnosis.

An x-ray examination of the lungs revealed no evidence of any active tuberculosis process although a moderately positive tuberculin reaction was obtained with an injection of 1-10cc of a 1:10,000 dilution of old Tuberculin. However, in these cases the tuberculin test is of little significance except possibly as an aid toward differential diagnosis as it has been shown to be strongly positive in some and negative in other previously reported cases of this type.

Unfortunately no animal inoculations were made with a piece of freshly excised skin from the involved area in an attempt to demonstrate the presence of Tubercle bacilli, but in previous reports where this has been done, the results have always been negative. Similarly it has never been possible to show tubercle bacilli in sections of such tissue stained by special methods.

Such negative evidence suggests that this skin condition represents an allergic process secondary to a tuberculous focus elsewhere, rather than a true tuberculous infection of the skin, but a just criticism has been raised that because of the technical difficulties involved, the failure to demonstrate the presence of tubercle bacilli in such tissues is not always conclusive evidence of their absence.

Since this entity was first described in detail by F. Lewandowsky in Germany in 1917, numerous cases have been reported in this Country and abroad, and several methods for its successful treatment have been established.

Joseph Jodasshon in Germany recommended treatment of the involved areas with blistering doses of ultra violet light from water-cooled quartz mercury vapor

are lamp. Wile and Grauer at the University of Michigan advocate the same procedure plus general supportive measures with a high vitamin intake, while MacKee and Sulzberger in New York have reported several cures resulting from injections of gold sodium thiosulphate, and additional cures from careful desensitization with increasing doses of tuberculin in those cases showing a positive tuberculin reaction.

Because exacerbations of the process and relapses during the treatment have been reported following nervous and emotional upsets, it is well to shield these patients from this type of harmful influence as far as possible.

After the diagnosis was established the patient that I am reporting was started on weekly injections of 25 mgs. of gold sodium thiosulphate. At the end of four injections as her condition had not improved, the dose was increased to 50 mgs. once weekly. Almost immediately the eruption began to disappear, and after three months of continuous treatment, her skin now appears almost normal, and it is hoped that a few additional injections will effect a complete and permanent cure.

BOOK REVIEWS

MEDICAL NURSING.—By Edgar Hull, M. D., F.A.C.P. Clinical Professor of Medicine, Louisiana State University, School of Medicine, Visiting Physician, Charity Hospital, New Orleans, and Christine Wright, R. N. B. S., Graduate Davis Fischer Sanatorium, Atlanta, Instructor of Nursing Arts, Charity Hospital School of Nursing, Public Health Nursing, St. Mary Parish Health Unit, Franklin, La., and Ann B. Eyl, B. S., Assistant Director Cook County School of Nursing, Chicago, formerly Dietitian, Cook County School of Nursing, Chicago, formerly Instructor in Home Economics, University of Kentucky, Therapeutic Dietitian, Charity Hospital, New Orleans, Dietitian, St. Vincent's Infirmary, Little Rock, Arkansas. 168 Illustrations, including 11 colored plates. F. A. Davis Company, Publishers, Philadelphia. Price, \$3.50.

The aim of this book is to impart to the student nurse an understanding of the principles of general medicine and to furnish a brief, yet accurate description of all the important diseases and indicate the medical treatment, nursing care and dietary management of these diseases. The three authors have made their contributions independently so that the student may see each from three viewpoints, from the doctor, who directs the treatment, the nurse who administers it and the dietitian who plans and prepares the diet.

SIMPLIFIED DIABETIC MANUAL. — By Abraham Rudy, M. D., Associate Physician and Chief of the Diabetic Clinic, Beth Israel Hospital, Boston. Instructor in Medicine, Tuft's College Medical School, Consultant in Diabetes, Jewish Memorial Hospital, Roxbury, Mass., and Jewish Tuberculosis Sanatorium, Rutland, Mass. Introduction by Frederick M. Allen. M. Barrows and Company, Inc., 286 Fifth Avenue, New York City, Publishers. Price, \$2.00.

This new edition includes all the latest developments in the treatment of Diabetes, with special reference to diet. Many recipes are given for all nationalities with substitution charts to vary the menus so that normal food habits may be followed whenever possible.

Special attention is given to the problem arising from the use of new types of insulin. The role of heredity and other factors in the development of diabetes are discussed in detail.

Prevention and treatment of various complications are taken up in order of their importance. This volume is a ready guide for the diabetic, the busy general practitioner, the dietitian and the nurse.

GYNECOLOGICAL AND OBSTETRICAL PATHOLOGY, WITH CLINICAL AND ENDOCRINE RELATION.—By Emil Novak, A. B., M.D., Dsc. (Hon. Dublin), F.A.C.S., Associate in Gynecology. The Johns Hopkins Medical School. Octavo of 496 pages, 427 illustrations. W. B. Saunders Company, Publishers, Philadelphia. Cloth, \$7.50.

This splendid volume is based upon an unusually wide experience and a background of 25 years of teaching. All the lesions of the female genital organs are discussed with emphasis placed on those conditions of greatest importance and incidence. Each one of the female genital organs is taken up individually and under each are considered the particular diseases that may manifest themselves in that organ. There are 12 chapters on the Ovaries, extensive considerations of the cervix, endometrium, uterus, ectopic pregnancy and similar conditions.

CANNED FOOD REFERENCE MANUAL.—American Can Company, 230 Park Avenue, New York, N. Y., 1939. In this small publication the American Can Company has included a brief history of canning, the place of canned foods in human nutrition and the text of the new Federal foods. Included in this small publication are some very useful tables on chemical composition of commercially canned products as well as other useful references.

Information about the securing of this publication can be obtained from the American Can Company.

COMPLETE GUIDE FOR THE DEAFENED.—By A. F. Niemoeller, A. B., M. A., B. S., Author of the Handbook of Hearing Aids. Foreword by Harold Hays, M. D., F.A.C.S., author of the Modern Conception of Deafness. Harvest House, 70 Fifth Avenue, Publishers, New York. Price \$3.00.

This volume is designed to help the deafened to find a happy place in society, and considerable attention is given to the problem of personal adjustment. Several chapters are devoted to preventive measures in schools, through social legislation, and in the homes. The author also discusses the care of the ears and general bodily health as it affects the hearing. Explanation is given how the hard of hearing can enjoy such recreations as radio, movies, church sermons and lectures, how they can converse with their friends and hear telephone conversations.

This volume is written to serve as a practical guide to the deafened to a fuller, and richer life.

ROENTGEN TECHNIQUE.—By Clyde McNeill, M. D., Louisville, Charles C. Thomas, Publishers, Springfield, Illinois; Baltimore, Maryland, Publishers, Price \$5.00.

This volume deals principally with roentgen anatomy and positioning. For the sake of clarity line drawings have been substituting in many instances for halftone reproductions of roentgenograms. The drawings are not schematic, each has been prepared from an actual roentgenogram. As the X-ray machine has become a universal and necessary adjunct to almost every physician, this volume fulfills a longfelt need for a manual that can be referred to in every phase of this work. The illustrations are arranged and designed for a ready reference for the student, surgeon and general practitioner.

DERMATOLOGIC TREATMENT IN GENERAL PRACTICE.—By Marion B. Sulzberger, M.D., Assistant Clinical Professor of Dermatology and Syphilology, N. Y. Post-Graduate Medical School and Hospital, Columbia University; Associate Attending Dermatologist, Montefiore Hospital New York City, and Jack Wolf, M. D. Attending Dermatologist and Syphilologist, N. Y. Post-Graduate Medical School and Hospital, Director of Dermatology, New York City Cancer Institute.

This book embraces information on dermatological and anti-syphilitic therapy which every physician can use profitably; burdensome details have been omitted. There are 266 good prescriptions with necessary information regarding their use.

The common skin diseases are dealt with in such a manner as to be of the greatest practical value to the general practitioner. The names of the more important entities that must be considered in the differential diagnosis of the common skin diseases are listed. This excellent book has been written to supply the practitioner with all possible assistance in the management of 80 to 90 per cent of the skin diseases he may be called upon to treat. Year Book Publishers, Inc., 304 South Dearborn, Chicago, Ill.

NEOPLASTIC DISEASES.—By James Ewing A. M., M.D., Sc.D., LL.D. Professor of Oncology at Cornell University Medical College, New York City; Consulting Pathologist, Memorial Hospital. Fourth Edition. Revised and Enlarged. 1160 pages with 581 illustrations. Philadelphia and London. W. B. Saunders Company, 1940. Cloth, \$14.00.

The New (4th) Edition of Neoplastic Diseases includes the very latest knowledge of tumors, both benign and malignant, Dr. Ewing has extensively revised the work from title to index. New material has been added throughout, many subjects entirely rewritten.

What are the causes of neoplastic diseases; their characteristics and the clinical course of their inroads on the human body? These are the question Dr. Ewing answers specifically, comprehensively in the light of his long personal experience and intimate knowledge of medical progress in dealing with cancer.

He tells how to recognize cancer in its incipency, how to distinguish between malignant and benign growths, how to evaluate the various diagnostic methods and coordinate their use in reaching accurate conclusions. More than that he lays down the plan of treatment, emphasizing factors essential to success, giving indications and contraindications and frankly evaluating each treatment in eradicating neoplasms and preventing recurrence.

BACTERIOLOGY OF PUBLIC HEALTH.—By George M. Cameron, Ph. D., Associate Professor of Bacteriology, University of Tennessee. Illustrated. C. V. Mosby Company, St. Louis, Publishers.

This volume presents the important facts in regard to pathological bacteriology from a public health point of view. It incorporates only those descriptions of symptoms and processes of disease, which are of definite value in understanding the infecting organism.

It is a splendid guide for county health officers and students of public health.

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NEXT MEETING: LEXINGTON
SEPTEMBER 16-19, 1940

COUNTY SOCIETY REPORTS

McCracken: The McCracken County Medical Society met at the Ritz Hotel, Paducah, May 22, 1940. A paper was read by Dr. Errett Pace on Streptococcic Sore Throat. A motion was made and carried that all papers read this year be submitted to the Journal for publication.

A motion made and carried that the Secretary be instructed to report program of each meeting to the Journal for publication.

Members present were Drs. H. P. Linn, J. B. Acres, R. W. Robertson, Leon Higdon, E. W. Jackson, Burton Washburn, Warren Sights, Palmer Reed, E. R. Goodloe, H. G. Reynolds, R. D. Harper, Ewing Dunn, T. J. Marshall, Ted Rosenberg, C. E. Reddick, Errett Pace and Vernon Pace.

J. VERNON PACE, Secretary.

Rockcastle: The Rockcastle County Medical Society has held the following regular monthly meetings at the Dixie Boone Hotel, Mt. Vernon, at 6:30 p. m. Following a delightful dinner at 6:30, the scientific sessions are held followed by extensive general discussions and many interesting case reports are offered.

June 7, H. I. Frisbie, Stanford Hospital, Stanford, Artificial Feeding With the Levine Tube In the Home, Case Reports.

July 5, T. A. Griffith, Mt. Vernon, A Brief Outline of the Indications For Splenectomy With Emphasis on Ruptured Spleen.

Walker Owen, Health Officer and President, has been absent for two meetings due to illness. Meetings presided over by T. A. Griffith, Vice-President. Meetings adjourned at 9. p. m. Next meeting August 2. Program to be announced.

LEE CHESNUT, Secretary.

Whitley: The Whitley County Medical Society was host to the meeting of the Pediatric Conference of the Kentucky State Medical Association in the basement of the First Christian Church, Corbin, July 25.

The program consisted of a clinic from 2:00 to 4:00 P. M. to which all the physicians of the Eleventh District brought their interesting cases to be examined and discussed. At 4:00 P. M. J. H. Pritchett, Louisville, delivered an address on Summer Diarrhoeas, and at 4:30 P. M. Philip F. Barbour, Louisville, gave an address on Infant Feeding. Dinner was served at 6:00 P. M. at the First Christian Church followed by an evening session, at which the subject of Tomorrow's Children, was discussed by J. H. Pritchett, and Philip F. Barbour, Louisville, and Woolfolk Barrow, Lexington. The evening program was as follows: Health Problems for the Child, J. H. Pritchett, Louisville; Social Adjustment to the Community of a Child with Heart Disease, Philip F. Barbour, Louisville, and Modern Surgery's Contribution, by Woolfolk Barrow, Lexington.

D. S. MERENBLOOM, M. D., President,
C. A. MOSS, Secretary.

BOOK REVIEWS

SHOCK, BLOOD STUDIES AS A GUIDE TO THERAPY.—By John Scudder, M. D., Med. Sc. D., F.A.C.S. From the Surgical Pathology Laboratory of the College of Physicians and Surgeons, Columbia University and the Department of Surgery, the Presbyterian Hospital, New York City; 55 illustrations, 6 plates, 3 of which are in colors. J. B. Lippincott, Philadelphia, Publishers. Price \$5.50.

For many centuries, shock and its safe management have been investigated and only until recently has its true nature and sane method of treatment been found.

The author's background from his vast experience in Asiatic cholera and his recent experimentation and clinical research have made this volume a valuable library of information in handling shock, which daily occurs in the present mechanized life where burns, automobile and industrial accidents, operation hazards and dehydration states, occur daily.

THE THYROID AND ITS DISEASES.—By J. H. Means, M. D., Jackson, Professor of Clinical Medicine, Harvard University and Chief of the Medical Services, Massachusetts General Hospital, J. B. Lippincott Company, Publishers, East Washington Square, Philadelphia.

The title page of this volume states that the material used is based in a large measure on experience gained in the Thyroid Clinic of the Massachusetts General Hospital. All the physicians and surgeons as well as other collaborators past and present are contributors and the period of observation has extended over more than two decades. So thoroughly has the data been collected and presented, it can be used as a text book and a guide to the surgeon and general practitioner to the approach of the thyroid problem.

THE COMPLEAT PEDIATRICIAN.—By W. C. Davison, Professor of Pediatrics, Duke University, School of Medicine. Formerly Acting Pediatrician in Charge, The Johns Hopkins Hospital. Duke University Press, Durham, North Carolina, Publishers. Price \$3.75.

This volume was designed for the use of students, internes, general practitioners and pediatricists. Much in this new third edition has been rewritten because of the accumulation of the addition of pediatric knowledge during this last three years. So concise is the information on this subject that the book can readily serve as a ready reminder to be carried like a stethoscope in a physician's pocket or bag to jog his memory, a reliable reminder which often makes the physician the master of the situation.

PSYCHOBIOLOGY AND PSYCHIATRY, A TEXTBOOK OF NORMAL AND ABNORMAL BEHAVIOR.—By Wendell Muncie, M. D., Associate Professor of Psychiatry, Johns Hopkins University, Assistant Psychiatrist, Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, with a Foreword by Adolf Meyer, M. D., LL.D., Sc. D., Henry Phipps, Professor of Psychiatry and Director of Department of Psychiatry, Johns Hopkins University, with 69 illustrations. C. V. Mosby Company, St. Louis, Publishers, Price \$7.50.

This book is aimed primarily for the use of students and has been stripped of much detail which is often confusing to beginners as psychiatry is a branch of medicine that is increasing in interest and is taking its place in the essentials in the practice of medicine. It was written at the request of Adolf Meyer, whose untiring efforts of 25 years as a student of psychiatry is well known to every physician. The book is divided into 4 parts, as follows. 1. Psychobiology, 2. Psychopathology, 3. Treatment, 4. Historical Appendix.

SYNOPSIS OF CLINICAL LABORATORY METHODS.—By W. E. Bray, B.A., M.D., Professor of Clinical Pathology, University of Virginia, Director of Clinical Laboratories, University of Virginia Hospital. Thirty-two text illustrations. Eleven in color plates. The C. V. Mosby Company, St. Louis, Mo., Publishers. Price \$3.75.

Clinical laboratory work has become a very important part in hospital, clinic and private practice. No physician should be without a concise manual that will explain in details not only the methods in laboratory procedure, but the method of interpreting results.

This volume will fulfill that need as it has brought together in a small volume needful information of methods used in laboratory diagnosis.

This book is the outgrowth of a long experience in teaching clinical diagnosis to medical students and in teaching and supervising clinical laboratory technicians by one of the best pathologist in the South.

HANDBOOK OF HEARING AIDS.—By A. F. Niemoller, A.B., M.A., B.S., Author of Complete Guide for the Deafened, with Foreword by Harold Hays, M. D., F.A.C.S., Former President of the American Society for the Hard of Hearing. Harvest House, 70 Fifth Avenue, New York City, Publishers. Price, \$3.00.

More than 10 million people in this country are in need of some type of hearing aid, and for them and their physician, this new book offers a guide through the maize of manufacturers claims. All known types of hearing aids are discussed and evaluated.

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PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American System of democracy.

PRESIDENT'S ADDRESS
AIMS AND ASPIRATIONS
AUSTIN BELL, M. D.

Hopkinsville

The pride in Kentucky citizenship is a rich heritage and should furnish a stimulus in every walk of life to successful accomplishments.

Mr. Justice Holmes truly said, "Every calling is great, when greatly pursued," and with this idea dominant in his own life embraced the profession of law and advanced it as have few in American history. He knew that law could be dry and technical, its practice a sordid scramble for clients winning cases that were better lost, but he was not satisfied with the ordinary in his daily tasks and believed that law was not drawn sacredly from dead precedents but was based on experience, living and growing to serve man's changing destiny, which thought he gave to judges every where. (Reader's Digest, July 1937 condensed from American Magazine, Beverly Smith). His brilliant father brought equal emphasis to the same thought in medicine and attained high professional rank in Boston, noted as the center of medical and surgical knowledge, skill and culture. Later in life a like zeal in literary pursuits, brought fame and world wide recognition to his facile pen. A similar quest and enthusiasm with the present day practitioners of medicine offer abundant opportunities of transcendent importance to the future of our people.

In natural resources our State is second to none yet are we satisfied with our accomplishments in developing God given opportunities? What efforts are we making to activate our potentialities and produce the highest type citizenship possible within our borders and transmit to posterity, cities, towns, villages and rural communities the ideals of the Nation? Accomplishment of these aims and aspirations requires that we survey our present condition and possibilities and unitedly strive to meet the challenge that confronts us. The medical profession of the Nation has many problems to face and Kentucky doctors and public spirited citizens must do their part in their solution.

American medicine leads the world in practical and scientific knowledge and the bulk of our people are blessed with a type of service superior to that found elsewhere, yet are we satisfied to have so many with-

out adequate medical care, rather our goal should be abundant and complete service for all and then we may expect only to approximate that ideal.

Dr. Chambers of the University of Kentucky presented a survey of this most important question, giving facts that were incontrovertible both as to our status and future developments unless constructive thought and effort were utilized to correct existing evils. His conclusions that one-fourth of the counties and one-seventh of the people were without decent medical service and the annual decrease of fifty physicians a year, especially where the unreplaced loss was of general practitioners and in those localities where the needs were greatest and the accessions were largely specialists and in the cities already abundantly supplied, graphically stressed existing conditions.

The report made in Bowling Green by the Committee on Economics appointed by this Association, emphasized the fact that in 1914 there were 3,621 doctors in Kentucky, in 1929, 2,904, while in July, 1939, there were only 2,236. Of this number 1,030 were located in 13 cities of the State, each with a population of 10,000 or more. Two counties had only one physician each, furnishing medical service to 10,000 people; in three counties one for more than 5,000 and ten counties, one physician to more than 3,000. The increase in population during that same period i. e. 1914 to 1939, was from 2,340,000 to 3,000,000. Many things contributed to the inadequate distribution if not to an actual shortage.

The grading of medical schools by a commission of the American Medical Association undoubtedly was the beginning of a limitation of yearly graduates. The State Boards almost automatically refused license to graduates of sub-standard schools which resulted in a laudable effort to meet A grade requirements and consequently colleges unable to do so were speedily closed.

In 1906 Kentucky had six medical schools, some having low standards, from which many poorly equipped physicians were graduated each year. Kentucky's needs were more than supplied from these and other schools, many of whom had poor preliminary educational advantages and lacked in native ability, while others, in spite of their unfortunate early medical training, by reason of good mentality, dint of application, energy and enthusiasm and through the influence and stimulus of brilliant teachers found in each school, justly attained positions of prominence and became most proficient.

By 1910 all medical schools in Kentucky had closed or consolidated, leaving only the present University of Louisville, which ranks with the best in the Nation, but graduates a limited number each year, and could not supply Kentucky's replacement needs should every graduate locate in its borders. This readjustment required a pre-medical preparation far exceeding that of the past and extended the medical course to four years. Even then, men of ambition, realized the importance of hospital training and were unwilling to assume the responsibilities of practice, without one or more years, spent in such work. Many men of limited means hesitated to undertake such a Herculean task.

Can the graduate of today be censured for an unwillingness to locate in a village or the country, who has spent from seven to eight long and busy years in a technical education before receiving his degree? Without hospital facilities, in which is included laboratory, X-ray and other scientific aids, he feels completely lost and realizes his inability to render the highest type service.

The economic phase must be considered to properly evaluate conditions and often the young doctor determines on the acceptance of a position which does not require a great financial outlay, already keenly conscious of the burden of debt.

The small town and country physician realizes little from his first year's work and it takes three years or more to become financially and professionally established. Of course this is dependent on seasonable weather, abundant crops and lucrative prices, a triad rarely found in rural Kentucky.

Compare if you please the present planters with those of the past! Depressed financial conditions and deplorable indebtedness have resulted in an exodus of the better educated and the more highly cultured to the towns and cities, and left in their places many whose ambitions are less keen and whose desires are easier gratified. Unpaved roads, poor schools, weak churches and decadent community life, each, is a factor worthy of consideration. What doctor, experiencing such a life, would advise his son to face these problems? What doctor's wife would willingly have her daughter assume the burdens of a country doctor's home and rear a family under such adverse conditions? What appeal can such a community offer a young man who has spent seven to ten years in preparation and observed professional life under vastly superior surroundings?

Many portions of Kentucky offer serious road problems in winter and wet seasons and buggies are rarely available for those unpaved. The goal should be a hard surfaced road by every farm house for marketing crops at all times, which would prove an asset of great importance in securing prompt and efficient medical service in that community. The busy doctor, who spends his time traversing mud and unkept roads, with the loss of sleep entailed by ill patients and obstetrical cases has little time for study and less to devote to his family.

Community life must have proper consideration where the schools, churches and neighborhood gatherings are encouraged. Community hospitals are important factors in this improved regime. Not necessarily county hospitals, for several counties may be served by the same institution, where the roads are good, area small and sparsely settled. The people served must feel a sense of responsibility for their successful conduct and upkeep and it is imperative that provision be made for the indigent in every community. The present trend toward a Federal subsidy to build such hospitals suggests the equally important subject of maintenance. Experience teaches the burden to a community of a hospital without endowment or fixed monthly income. When successfully and wisely managed it proves a financial asset and progressive merchants profit greatly in proportion to their realization of this fact, with cultivation of the family and friends of the patients. The training schools for nurses are essential to their economical and wise management which should meet local demands and train nurses to serve the local communities in caring for the sick and helping to relieve the overworked doctor.

The lofty ideals of the nurses organizations are most commendable in developing trained assistants of a highly specialized type, but are they practical for the needs of rural Kentucky and are they conducive to the best interests of the people as a whole? This most zealous body has seemingly lost sight of the sick and the needs in the home, in an effort to elevate the nursing profession into a scientific rather than a practical organization. The hue and cry in the nurses journals today is against over production and the numbers that are idle, while many communities are sadly in need of nurses and the hospitals there located could train young women to meet imperative local demands. It might be noted that the Louisville papers have con-

tained articles indicating that the City Hospital has not satisfactorily met her nursing problems, thus emphasizing city as well as urban readjustments in the nurses field. So long as the nursing profession can say to the small hospital, "You will not be permitted to have a training school of any type unless you subscribe to our ideals," and as an organization can lobby and legalize such authority, just that long will rural Kentucky be retarded in her development and her citizenship prevented from securing adequate medical and surgical attention, for in such accomplishments the small hospital is a necessary factor and due consideration must be given the financial status requisite for the proper functioning of such institutions.

The care of the sick and unfortunates should be the primary reason for the existence of nurses, doctors and hospitals. The refinements of the modern training school may furnish to the State a limited number of nurses who are a credit to any community in their technical and theoretical knowledge but does that training enable them to better relieve suffering humanity or change the economic status of the community, for in reality sickness is a grave economic problem. Every respect is accorded the ambitious nurse, who is not satisfied with ordinary accomplishments, and institutions are and should be available, where her desires and talents may receive just recognition. Hospital superintendents and those in positions of authority, should come from this class but the same high standard for every nurse will destroy the usefulness of many. Already in rural communities and even in the cities untrained and slightly trained nurses are caring for many of the sick. Those communities with hospitals and without training schools, utilize only a limited number of graduate nurses and much of the care to patients is given by untrained help, who eventually leave that service and establish themselves as practical nurses. In many instances they better fill the needs of that community than would the refuse of graduate nurses in cities who vociferously decry lack of employment. It is neither my desire nor intention to reflect on the usefulness or efficiency of the graduate nurse. Her advent has proven the greatest boon to the sick and physician alike and practical, well trained nurses should be available for every section and would completely dominate the nursing field under wise and equitable leadership with the patient having chief consideration. The suggestion of a trained nurse in the home often bring

the refrain, "They require too much waiting on," words often prophetic of actual conditions encountered. The independence of many is indicated by the questions asked as to where the patient lives and the conveniences in the respective homes and many calls are rejected as a result of the accommodations found. The exactions demanded by the nursing organizations in their effort to secure abundant work for their members, visit hardships on the small hospital and increase expenses of operation. Does that course tend to increase the number of small hospitals or jeopardize those in existence? Already the cities are abundantly supplied with doctors, nurses and hospitals but do empty hospital beds and idle nurses there justify such rigid requirements as to preclude the continued existence of the much needed small institution? Dr. Chambers said, "There is a large degree of correlation between hospital shortage and physician shortage; the two tending to go together," which suggests a comprehensive, consistent program of hospital building as a factor of prime importance in the solution of the problem of physician shortage to which might be added a sane and practical training course to supply nurses for such communities.

The statement is often made that the recent graduate in medicine does not respond as cheerfully and generously to the charity patients as those of the past, and that the medical care of the unfortunates is not so readily secured and too often lacks the same meticulous attention as that rendered the more fortunate. There may be an element of truth in this but an analysis of the records will certainly present extenuating circumstances. It is a well known fact that few doctors in the past, derived a sufficient income from their collections to meet all current expenses and to accumulate a surplus for their declining years. The work actually accomplished in the average doctor's active practice, were 80 per cent collected each year, would be more than sufficient to make him and his family independent and provide financial ease and comfort. The number of the aged who have bare necessities and the few who can afford luxuries is proverbial while many are dependent on others for support.

Unemployment in the past was not a major problem and with few exceptions honesty and a sense of obligation dictated that most people remunerate the physician for his services. Pride and a spirit of independence dominated the individual and the acceptance of charity was distasteful. Those who had no intention of paying

were most prolific in promises and disclaimed a willingness for gratis service.

The financial crisis that followed the post war boom left many without the essentials of life, and public bounty was needed from the Nation, State and community, in addition to assistance rendered privately by charitable individuals. A continuance of these conditions has developed a peculiar psychology in which it is commonly believed that organized Society should furnish to all, work or gratuities, and many seem to feel when engaged in governmental employment made possible to provide sustenance for those in need, that doctors should furnish their services without cost. The vast numbers today as contrasted with the few families in the past stress the additional burden placed on the profession since 1929. Doubtless there is justice in the claim that measures should be taken to provide adequate professional care for many who are failing to secure it. As a great profession we have in the past provided medical service for the worthy poor but under existing financial conditions, with the high cost of medical education and professional equipment, and the vast hordes constantly demanding medical and hospital attention, it has become so burdensome that the federal, state and local governments must make some provision to distribute the costs. Today, many seem boastful of their position and offer that as a reason for gratuitous services from the doctors. We must not be unmindful of our obligations but personal demands for self and family, require consideration. It has been said that a great number of our old doctors eventually went to the **poor-house** or asylum, the latter in my own county far preferable to the filthy, unkept and disgraceful provision made for our local unfortunates, prior to the purchase of our present Benevolent Home.

As much as we may dislike to accept prevailing conditions with certain of our people, the change has taken place in their attitude toward relief and many problems closely allied, i. e. free medical service. Where unemployment exists, it is construed so liberally as to include those on projects sponsored to furnish work-relief, and we must realize this is to continue as a governmental function. How much easier to prevent changes than to re-establish the old order when the new has replaced it. The burden of caring for the indigent is on the shoulders of the medical profession and only three counties in the State have adequate provision for remunerating such service. A failure on our part

to sponsor an equitable and adequate plan will inevitably result in a demand for action by the public, and response by the politician in legislation alike unwise and destructive to a scientific and progressive profession as well as harmful to our people.

Provision for the care of the tubercular patients is tragic as only three hospitals are devoted to this disease in Kentucky; two in Louisville, Waverly Hill 520 beds, and Hazelwood 120 beds and in Fayette County, Julius Marks of 94 beds. The indigent tubercular patients in 118 counties of the State have little chance for scientific institutional supervision. Should we be surprised at the suggestion of State Medicine, the greatest possible evil for the people of the State and the profession? Some have condemned the County Health Unit as the entering wedge of such a system. That is not my conviction. It may be used wisely or unwisely, and prove a great blessing or a dire calamity, depending on the personnel of the health board and the tact and discretion of the directing head.

Numerous articles in the lay and medical press have so stressed the psychopathic status, that practically all are conversant with that deplorable situation. Already earnest efforts are made to correct conditions and advances are noted in all our State Institutions, yet the progress is only suggestive of the vast changes indicated. The complete divorce of these institutions from partisan politics is the one essential to a successful policy, but they have proven the football of scheming and vicious politicians, and the condition of the unfortunates is often forgotten in the greedy desire to utilize the employees for unholy purposes. Those unwilling to aid in the debauchery of the ballot quickly learn that the less competent and the conscienceless but willing tool, retains his place or receives promotion and the upright employee, if not dismissed, is constantly penalized for lack of cooperation. Whether partisan or bipartisan boards are most capable of handling wisely existing conditions, in the last analysis, will depend on the type Governor who is responsible for the appointees. An aroused public conscience is the only possible guarantee to a correction of these defects, through the selection of officials of high character and humanitarian desires. Good citizenship is essential for such a goal and members of our great profession should have as a major objective an active interest in the selection of party nominees and public officials from the highest to the lowest.

Governor Johnson has manifested a deep concern about the success of such a program and has made available large sums to render safe and modernize our State Institutions and as good citizens his efforts should receive our hearty approval and earnest support. A complete program must depend on State finances and an aroused public conscience, and the divorce of these institutions from changing political control. Prolific pre-election promises should be remembered in subsequent efforts at political preferment and their sacredness in fulfillment should prove an index to the worthiness of the candidate.

The hearty support of the organized profession in Kentucky is sorely needed to perfect the present effort in modernizing our buildings, equipment and personnel, to humanely and scientifically safeguard our unfortunates and offer the opportunity of cure where possible and alleviate at all times. Duty demands such a course and good business is equally as insistent. Doubt arises as to the high percentage of cures so frequently claimed and distressing relapses darken the picture, yet a personal application and a realization that our loved ones may furnish a portion of the recoveries, should determine a general desire to place our public institutions in the highest grade. All this data stresses the urgent need of considering every influencing factor in a discussion of the solution of medical service.

Surgeon General Cumming of U. S. Public Health Service in commenting on the rapid strides and marked progress in health work in the Southern States made the suggestion, "It is my earnest wish that I may be privileged to see the day when an even greater record is set; when every county, or like sub-division, in every State will have its full-time Health Department."

President Hoover in an address said, "The organization of preventive measures and health education, in its personal application, is the province of public health service. Such organizations should be as universal as public education. Its support is a proper burden on the tax payer. It cannot be organized with success either in its sanitary or educational phases, except under public authority. In its practical working out of organization, exhaustive experiment and trial have demonstrated that the base should be competent organization of the municipality, county or other local health unit."

The medical profession is jealous of its rights and justly so, and its members will

and should resent with fervor, any unfair discrimination or unwise legislation, and those in authority to correct the evil of inequitable distribution of medical service, must not embrace the greater evil of State Medicine as a remedy, or entertain ideas which will tend toward such development.

The medical profession of Kentucky should dominate the activities and direct the course in protecting the health of all the people. Individual prejudice and petty jealousies should be subordinated to the public good, else those unqualified to lead will resort to unwise legislation and ill advised measures in a vain effort to correct conditions. Would not the wise policy be the acceptance of our responsibilities as a profession thus safeguarding the public and the profession, for their interests are identical, and through cooperation and helpful suggestions develop a program constructive and equitable. The Kentucky survey states, "The essential problem, rests, not in keeping the ratio of the entire State above one physician to every thousand people, but in bringing every part of the State up to that level." Dr. Rankin of the Duke Endowment estimated that with the fullest technical equipment one physician could efficiently care for a population of 1,000. This is contingent on a number of factors including good roads, distances to be traversed, trained assistants and hospital facilities. To accomplish this, recruits must come to rural communities in greater numbers and the suggestion is often made that more medical schools will help solve the problem.

Criticism of the drift toward specialization is frequently heard, which comes from the intensiveness of the training given the medical student today, but such training is necessary in the very accomplishments of the things sought. A physician must be well trained to render him capable of doing the bulk of Medicine, Surgery and Obstetrics that falls to his lot, wherever located, and his diagnostic skill must be highly sensitized, to enable him to meet the emergencies of the day. The X-ray and laboratory are of vital importance in this accomplishment, and certain technical knowledge, and familiarity with these accessories are necessary for him to evaluate their good and use them to the best advantage. The progressive doctor today must have hospital facilities and modern laboratory equipment, and that community which fails to supply such necessities, in the course of time will be without a physician as conclusively proven by the

modern trend. We must not lower our standards, for all the people are entitled to the most intelligent service and should not be satisfied with less. Rather, the communities should be educated to those things necessary to secure adequate medical service and the public spirited citizens, the State and the Nation must each do its part in meeting these requirements. Too often, the well intentioned theorist earnestly strives to solve these problems, and from his city experience undertakes to direct the course and suggest the essentials in rural medical service. His idea as to conducting the small hospital is gained from his daily contact with the city institution and its problems, and little does he realize that every dollar spent must be judiciously used, and every unnecessary expense eliminated, else the success of the venture is doomed.

The very waste in money and material in many of the large hospitals amounts to more each year than that available for the small institution's every expense. The problems are different and their solutions must be determined by those most vitally interested and best able to judge the section's needs. The city physician's experience is most valuable in helping to solve the rural requirements, but his judgment may be biased by the problems which daily confront him and the same measures may not be applicable to the proper solution of urban and rural demands.

The most modern developments of a century ago would prove totally inadequate today, but the same grade of culture and refinement is not found in every community, nor can the same financial outlay be afforded by each. In consequence, wisdom dictates that leniency must be shown certain institutions and the same high standard should not be required of them as is expected in more favored communities where the public is educated to their great value. A minimum standard is essential in the maintenance and conduct of every hospital but judgment and discretion should be used in determining the provisions, lest an increased or additional burden preclude the successful operation. None will question the wisdom of holding before those in authority and interested, the highest ideals, but the nearness of the approach to that goal will depend on community conditions. As time passes and advances are made, through experience and systematic education, further legal requirements must be determined by the status of each community.

Kentucky is essentially an agricultural State: her cities are few and many sec-

tions are sparsely settled and our future demands that the least favored portion be given the same opportunity for growth, development and protection of its citizenship, as is furnished to the most favored, and all legislation must have a proper regard for every class and section. Do not place burdens on those communities most urgently needing assistance, so exacting as to tax beyond its ability; rather assist each community in having those things essential in meeting necessary problems, and as time passes and conditions improve, higher ideals can and will be met.

World conditions today influence the national life of every people and our beloved country is in peril from avaricious, powerful, Godless and warring forces. Their dominating thoughts of "racial superiority and might makes right," are repugnant to a free people and liberty loving Americans must hold aloft those sacred doctrines and ideals, made possible and perpetuated by valor on the field of battle.

Christ scourged those who profaned the temple, vigorously and manfully driving them forth with the lash thus purifying and magnifying its sacredness.

We, too, have sacred duties to perform and preparedness is essential in their fulfillment. As an integral part of our national life important tasks face the organized medical profession, and we must be willing to wisely, unselfishly, fairly and bravely evaluate our capacities that we may accept the challenge of Senator Gibson of Vermont, "That liberty is not a gift from heaven, that liberty is something for which we must fight and sacrifice."

In his retreat from Paris, Premier Reynaud of France was besieged by a pushing, jostling crowd of refugee women that thronged the roadside, all shouting to resist to the end. Suddenly the voice of one of the Alsatian women arose above the others crying, "We must keep our liberty, fighting for that, what does it matter if we get a bullet or two under our skins."

Physicians have ever met their responsibilities in the hour of distress and danger. In the past, judgment and wisdom often gave place to enthusiasm and patriotic emotions. In the present crisis we should use our heads and our hearts to conserve the health and interests of all our people—safeguarding those in the field and practically facing the home front—which is of equal importance. Each of us should accept the task assigned, small though it be, and make it great in accom-

plishments, translating into action the intelligence, ability, skill, capacity and the will to meet every challenge in protecting, preserving and perfecting for future generations those lofty thoughts and soul stirring ideals. In those worthy ambitions shall Kentucky's doctors be recreant to duty's call or valiant leaders in this great struggle? Surely in this accomplishment there shall be glory enough for all.

ORATION IN SURGERY

LUNG ABSCESS

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It becomes necessary from time to time to review various clinical entities in the light of new thought and development that whatever practical has accrued might be applied with benefit, either in the greater accuracy of diagnosis, a better understanding of the clinical course, or in the treatment. At this time my interest is concerned with the problems associated with the treatment of acute, putrid lung abscess. In view of the currently high morbidity and mortality this subject is worthy of our interest and attention. In spite of a great increase in our knowledge of its etiology, the more accurate means for its diagnosis and localization, the addition of improved supplementary and supportive measures, and an altered surgical attack, the average mortality attending acute lung abscess remains discouragingly high.

Acute pulmonary abscess is primarily a suppurative disease, the result of known or assumed aspiration of anaerobically infected material which initiates an intense, destructive inflammatory process in one of the smaller bronchi. There are usually certain characteristics which distinguish it from the other varieties of lung abscess, such as those occurring in bronchiectasis, putrid necrosis complicating pneumococcal pneumonia, Friedlander's pneumonia, miliary abscesses following bacteremia, and tuberculous abscesses. These others deserve separate and special consideration.

By most authors, acute pulmonary abscess is defined arbitrarily on the basis of time alone, as one not more than six weeks duration from the onset of pulmonary symptoms.

Little disagreement exists as regards the etiology. The organisms more frequently found are the fusiform bacilli, spirilla, streptococci, fungi and the like which

often exist in the mouth in a more or less dormant form. A high percentage of these cases follow operations upon the nose, throat, upper respiratory passage, and teeth. Sweet, in analyzing 125 cases from the Massachusetts General Hospital found that acute lung abscess followed soon after tonsillectomy or some operation in the nose or throat in 56 per cent of the cases. Cutler and Gross found preceding similar operations in 54 per cent of their series and Flick in 70 per cent of his group. Stern emphasized the factor of gingivodental infection and in support of this opinion he found this source of infection in 84 per cent of the adult cases of acute putrid lung abscess of unknown or obscure origin. The greater frequency of right lung involvement, the great majority of single lesions in all series strengthen the theory of aspiration rather than an embolic source for the infection. Multiple, widespread and bilateral lesions more frequently are the results of septic emboli.

An understanding of the pathology of acute abscess of the lung constitutes the foundation for the correct treatment. "The disease is bronchogenic in origin and begins in the smaller bronchi at the site of the aspirated infectious material. Because of the presence of pathogenic anaerobic organisms an intense necrotizing process is initiated which involves the surrounding pulmonary parenchyma and produces an inflammation of the overlying pleura." The clinical picture at this stage is one of pulmonary consolidation or pleurisy, and even the X-ray is indistinguishable from that of ordinary pneumonia. It is worthy of note that lung abscesses, as such, have existed in cases operated upon within two weeks of the onset of the pulmonary symptoms. This bit of evidence further emphasizes the view, that early surgery is not contra-indicated for fear of encountering an ill defined area of gangrenous pneumonia. Too much emphasis cannot be placed upon the superficial situation of acute putrid pulmonary abscess, and the presence of pleural adhesions. This feature offers the key to early operability. Even the so-called "central abscess" does not violate the almost constant superficial or peripheral distribution. These lesions may face fissures, the mediastinum or the diaphragm but are invariably superficial in relation to the other lobes or the thoracic wall.

The clinical symptoms at the onset are those of an upper respiratory infection. The one symptom common to all is cough with foul sputum, which usually appears within two weeks of the onset. The

amount of sputum varies a great deal, averaging four ounces to a pint or more for the twenty-four hour period. Blood in streaks makes its appearance sometime during the early course and at times assumes gross proportions. Pain, of varying intensity, is present in practically all cases. It denotes pleural reaction and again stresses the almost invariable superficial location of putrid lung abscesses. The pain coincides with the side involved, is often most severe at the site of the abscess itself and consequently may be of value in localization. The temperature is most elevated the first week of the disease and frequently becomes lower after the sputum starts. However, in the very septic cases and the ones in which free drainage is hindered the temperature may reach high levels with characteristic "spiking" septic alterations. The general appearance reflects fairly well the intensity of the infection and the patient's defense. Severe toxemia is most marked with pyopneumothorax.

The physical sign may be notoriously inconstant and vague or at the onset closely simulate the findings in lobar pneumonia. Cavernous breathing and pectoriloquy are not usually present until the later weeks.

The condition is more frequently undiagnosed in the early stages when it can be readily confused with the usual upper respiratory infections of bronchitis, flu, pneumonia or even pulmonary tuberculosis. There is nothing particularly diagnostic in the complaint of chest pain, fever, and cough which in the beginning is nonproductive. These may be the manifestations of any of the upper respiratory infections. Later when the process of liquefaction is well established and the abscess has broken into a bronchus with resultant pungent breath and the characteristic foul sputum the correct diagnosis is more likely to be considered. If the symptoms follow soon after operations upon the mouth, nose or throat the diagnosis of acute putrid lung abscess seems well established. When the sputum is blood tinged and the symptoms differ somewhat from lung abscess or pneumonia, tuberculosis is often suspected. However, foul sputum as a rule is rare in early uncomplicated tuberculosis, and its onset does not overwhelm the patient as quickly as acute pulmonary abscess. In the past these conditions have been confused and erroneously treated one for the other. At the present the treatment of these two conditions is markedly different and even harmful should they be so interchanged. It becomes obligatory

therefore, to rule out by repeated sputum examinations and other necessary tests, tuberculosis in every case of suspected putrid lung abscess.

The roentgenogram has proven of inestimable value in the diagnosis and localization. The characteristic roentgenogram discloses a single localized cavity in the lung with a well defined fluid level and a surrounding narrow zone of pulmonary infiltration. Unfortunately this typical picture which would make the diagnosis obvious to even the untrained observer, is present in a relatively small percentage of the cases. The variable pictures are interesting and should be understood for the part they play in revealing the condition and the pathological story they unfold. If the cavity is completely filled by pus and cellular debris no fluid level is visible and the shadow cast by the filled cavity merges with and is indistinguishable from the surrounding pulmonary infiltration and looks not unlike pneumonic consolidation. Not uncommonly seen are small areas of rarefaction noted in the midst of a shadow of infiltration. The surrounding zone of increased density may be quite wide with a well defined cavity, with or without a fluid level. Posterior-anterior and lateral exposures have far better localizing value than stereoscopic views. When an abscess has perforated into the pleura the picture is one of limited or widespread empyema, or more frequently pyopneumothorax. This tragic complication more frequently occurs in the second and third weeks of the disease, and may often take place while the patient is under hospital observation.

The sudden grave change in the clinical course makes bronchoscopy unnecessary for the diagnosis in the perforated cases, but this procedure should be done in most others for its diagnostic or therapeutic value. Only slight discomfort, and usually no risk, accompany bronchoscopy when expertly done. This emphasizes the desirability of employing direct inspection of the tracheobronchial tree in the presence of a great variety of obscure pulmonary affections, in which definite diagnosis cannot be reached by ordinary methods of examination. When one remembers the fact that primary malignant disease in the lung usually begins in the bronchus, and produces bronchial obstruction, it is not strange that the symptoms of primary bronchial carcinoma resemble those of pulmonary abscess, bronchiectasis, or empyema. It is, of course, quite impossible to distinguish carcinoma of the bronchus from an inflammatory lesion in the lung or pleura by the history, or by the general

examination. There is no better method of making a positive diagnosis of a bronchial lesion than by removing a specimen of tissue through a bronchoscope. In abscess of the lung, the disease can be definitely located. Marked improvement or resolution of an inflammatory condition may follow dilation of a stricture or the removal of an unsuspected foreign body from the bronchus. Malignant neoplasm with abscess formation is frequent enough that the condition should be considered in every case of lung abscess. In Allen and Blakeman's series of 100 cases of lung abscess, 5 bronchogenic carcinomas were found. In such cases the neoplasm probably develops to the point of obstructing a bronchus without its presence being detected. Secretions are retained, become infected and then the picture of sepsis and purulent sputum are dominant to suggest abscess rather than malignancy. Foreign bodies in the bronchial tree, like carcinoma, may be the predisposing factor in lung abscess. Histories may be incomplete in younger people where this condition more frequently plays a part.

In spite of our improved methods of diagnosis the morbidity and mortality attending the treatment of this condition remains discouragingly high in the hands of most physicians. Ten to fifteen years ago, surgical procedures were frequently used. However, the attack was often ill timed, utilized in poorly selected cases, without the advantages of well established means of accurate localization, and sufficient emphasis being placed on the superficial distribution of the lesion, consequently an almost prohibitive mortality was the outcome. It followed naturally that more conservative measures should have their trial alone, or in conjunction with surgery. Within this span of time various procedures ran their popular course. Postural drainage was probably one of the earliest methods of treatment attempted. In time, however, it became evident that the results were unsatisfactory in 30 to 60 per cent of the cases so treated, and that the high surgical mortality in many of the critical cases could be definitely attributed to prolonged, ineffective postural drainage. Flick, Clerf, and Funck reported on their results in 121 cases and Kernan his success in 103 cases treated bronchoscopically. Their results were correspondingly poor. Fifty-four per cent recovered in the first series of cases, and forty-five and five-tenths per cent in the latter. Artificial pneumothorax, because of its well established use and known benefit in the treatment of tuberculous

cavities has been tried alone or in conjunction with other procedures in small groups of cases by Miller and Lambert, King and Lord and others. Results indicate that it has a limited field of application; it not infrequently fails to accomplish its purpose, but is attended by the great danger of empyema, or pyopneumothorax. Phrenicectomy or nerve crushing must be considered only as an adjunct to postural drainage. Allen and Blakeman used it in 26 of 100 cases together with postural drainage and other conservative measures. Lueth treated 8 cases in a series of 101 by this method. The results have never been very gratifying.

Various drugs have been used, administered in divers ways, and with few exceptions with indifferent results. To mention a few of these would include intravenous alcohol and neoarsphenamine, rectal ether, sodium benzoate, and more recently sulfanilamide and its allied derivatives. The great danger in medical treatment lies in the interpretation of the results and in knowing when the patient is cured. Clinical and systematic improvement for a few days or weeks has often been considered a cure and the patient dismissed without careful follow-up observation. Many of these patients return or go elsewhere because of progression of the disease. It is important, therefore, to investigate these cases carefully for residual cavitation by lipiodal studies and frequent X-ray examinations before concluding that the disease is cured.

Within the last five years certain pertinent factors have been established to prove the value of early surgical treatment. Most important has been the almost universal agreements as to the peripheral or superficial location of the lesion, with early protective adhesions between the overlying compressed lung tissue and the parietal pleura. This localized, circumscribed area of obliterative pleuritis affords a safe point of entry for drainage of the abscess without the grave danger of pyopneumothorax. Accurate localization by means of bronchoscopy and anterior-posterior and lateral roentgenograms, particularly the latter, have made it possible to approach the abscess at the protected area. The general belief is that a cure must be established in the acute phase and if one can be reasonably certain that spontaneous recovery will not occur, then the sooner an operation the better the chance of cure. The outlook for spontaneous cure remains about the same. There will be approximately 20 per cent the first four months after the onset. This falls rapidly after the first year

when no case can be expected to recover without the benefit of surgery. The majority of the chronic cases die either with or because of the progression of the pulmonary diseases and it has been noted repeatedly that the progression was virtually limited to the lobe originally involved. The necropsy findings, in general, in such cases showed large multilocular abscesses with dense pleural adhesions, thick fibrous walled cavities containing pus, debris, and blood clots.

Finally we have turned to early surgical treatment because it is so widely accepted that the end results of conservative treatment, including the various measures are practically valueless. Whatever success has previously been assigned to such measures is now believed to be due to spontaneous improvement rather than to the effect of the specific treatment.

Formerly the indications for surgery were usually imperative and in a great part contributed to the high mortality. This had the natural effect to discredit surgery. Now the indications are more liberal and substantially justified by the improved results.

After anterior-posterior and lateral roentgenograms and bronchoscopy, to rule out cancer and foreign bodies, these cases may be given general supportive treatment and observed for approximately six weeks from the onset, provided weekly serial X-rays are taken and the clinical course is carefully watched.

According to Neuhof and Touroff, who have an impressive series of 83 cases, any of the following conditions may make it necessary or imperative to institute immediate surgical treatment.

1. Severe toxic clinical course, with high temperature, profuse sweats, marked weakness, extreme sepsis, leucocytosis, and anemia.

2. Absence of tendency toward spontaneous resolution.

3. An apparently stationary lesion, as noted in successive roentgenograms coupled with a moderately severe clinical course.

4. An increase in the size of the lesion accompanied by increasing clinical manifestations.

5. A more or less "shut off" lesion, or the development of a more or less shut off state in a previously open lesion.

6. A dangerously situated lesion, in the "cardiac lobe."

7. Unusually large lesions.

8. Roentgenographic evidence of pronounced pleural reaction suggesting impending or actual perforation of the abscess. The outstanding clinical feature of

perforation into the pleura is not only an ominous change in the condition of the patient but also the suddenness with which it occurs. The physical signs suggestive of fluid, or fluid and air in the pleura are definite aids to diagnosis and are to be contrasted with the vague physical signs usually present when the abscess is confined to the lung. Perforations occur in the second and third week in most cases but can occur during hospital observation as well as before admission.

External drainage is the procedure most generally used. It has for its object the adequate and thorough evacuation of the contents of the cavity and all necrotic tissue and the ventilation of the cavity that the existing anaerobic infection may be eradicated. Thoracoplasty and cautery lobectomy have been abandoned or at least used very infrequently. On the other hand (Sweet's) primary lobectomy has begun to be used. Difficulty in drainage and low percentage of cures in some upper lobe cases has led to the adoption of this procedure in selected cases.

For some time it was controversial whether external drainage be performed in one or two stages. The two stage procedure first gained preference for it seemed safer from the standpoint of danger of pleural contamination; particularly true if the site of the lesion was not determined with accuracy pre-operatively. A period of seven to ten days was awaited between stages for sufficient adhesions to form between the lung and parietal pleura. The time interval, however, had certain faults which were almost as great as the complication the plan was intended to circumvent. Not infrequently there occurred spillover infection in distant areas due to suppression of the cough as result of pain after the first stage, or perforation with pyopneumothorax developed. Now if the two stage procedure is used the second step is completed within one or two days to lessen this danger. With the more accurate localization the one stage operation is now almost the invariable choice. Under local anesthesia two or three inches of rib is removed, occasionally similar segments of two or more ribs may be resected. If the site has been correctly chosen the underlying rib bed will be dull, lusterless, and indurated. The abscess by virtue of its superficial position in the lung must first be located by inserting an aspirating needle through the exposed periosteum. The abscess cavity is usually found at a depth of less than one inch. At times it may be necessary to make radially directed needle punctures before encountering the abscess. After it has been lo-

cated it must be completely unroofed with the cautery or a knife. All necrotic lung tissue, cell debris, pus and blood clots, should be removed. This initial operation should be adequate and complete for the results attending secondary procedures are often very discouraging.

The most important aspect of the post-operative care is the maintenance of an open bronchial fistula until all infection has cleared as should be proven by the clinical course, repeated X-rays, and often bronchography. The problem usually is in keeping the fistula open rather than being concerned about closing it. Three to six or even nine months is not an unduly long time to maintain an open fistula.

The results of external drainage have been greatly improved since emphasis has been placed on the superficial location of the abscess, the presence of protective adhesions, and often the need and safety in doing the operation within the first six weeks. Lobectomy, more frequently done for bronchiectasis and carcinoma, is being advocated for abscess in the upper lobes and the chronic neglected cases which pathologically resemble bronchiectasis.

The usual complications, empyema, sepsis, brain abscess, spill over abscess, and chronic progressive pulmonary infection are being reduced since early surgical attack has gained acceptance.

The experience of Heuer, Neuhof and Touroff and a number of other observers who have studied the subject of acute, putrid lung abscess reflects the general opinion of gradually shortening the period of conservative treatment in favor of earlier surgical drainage. Most impressive has been the experience and results of Neuhof and Touroff in a series of 83 cases treated in the acute stage of the disease in which they report 83 per cent cures. This striking contrast with the average 40 to 60 per cent mortality should make all of us eager to evaluate their methods.

SUMMARY

1. The high incidence of surgical procedure on the nose, throat and teeth prior to the onset of symptoms of lung abscess is noteworthy.

2. A thorough understanding of the pathological process is essential to proper treatment.

3. The poor results following conservative treatment and various medical measures seem well established.

4. Adequate external drainage, when done early, offers the highest percentage of cures. Primary lobectomy is being advocated in selected cases.

ORATION IN MEDICINE

THE EVOLUTION OF OUR KNOWLEDGE OF TUBERCULOSIS

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Parasitism¹ is so common and universal in nature that it is almost impossible to find a living plant, creature, or crustacea that is not host to some parasite.

"There is no protection in nature against parasitic invasion." It is as old as life itself, and while it is not favorable to fossilization, there is evidence that bacteria existed in the Pre-Cambrian period. Parasitic fungi have been found in the remains of plants of carboniferous time. Fossil remains of rhinoceros show evidence of infection with actinomyces and even the Silurian period shows signs of parasitism.

Prehistoric man must have likewise been afflicted, and it is quite possible that he was decimated and annihilated by epidemic infections. There is no evidence that Neanderthal man² who existed probably for 100,000 years intermixed with Neolithic man—he entirely disappears, either by disease or conquest and is replaced by Neolithic man who made his appearance in Europe ten to twelve thousand years ago.

It is quite probable that he suffered all the parasitic diseases with which man is afflicted today. Calcified eggs of Bilharzial parasites have been found in the kidneys of Egyptian mummies 1200 B. C., an infestation which is still common in Egypt today.

It is natural to suppose that every parasite may have had an independent existence at some time. We do not know when the parasite Tubercle Bacillus or mycobacterium tuberculosis invaded man-kind, it probably reaches back to prehistoric man, for it was already a well established disease in Egypt 2000 to 3000 B. C. for mummies showing tuberculosis of the vertebrae³ have been exhumed, belonging to this period, and Webb⁴ cites a case of Potts disease attributed to 5000 B. C. Paleopathology⁵ of the Pre-Dynastic period in Egypt show rheumatoid arthritis to be a very common environmental disease. Evidence of Mastoid disease, appendiceal adhesions and pleural adhesions were also found.

Histological examination demonstrated spondylitis deformans biliary calculi, and atheroma of the arteries. Of this Pre-Dynastic period we have no absolute

chronology; the generally accepted date of the first Dynasty is 3200 B. C. Prior to this however, an astronomical calendar had appeared and was in use in 4241 B. C. In the Third Dynasty⁶, under King Zoser, civilization took a tremendous upward spring; the genius of man o'er leaps time and space; a thing nature never does, and credit for the phenomenal advances of this period is given to Zoser's Minister Imhotep, an unparalleled genius of the first order; a great physician and a phenomenal architect. He was later deified and becomes the divine patron of science: the Egyptian Asklepios. There is a tradition⁷ that an encyclopedic collection consisting of an indefinite number of books or scrolls containing all the wisdom of the ancient priests of the country was formerly in existence, but which has been lost. The last six books related to medicine.

In tracing the history of disease, one is prone to ascribe an antiquity to it which is speculative and not supported by authenticated facts. There is enough unquestionable evidence however, to show that disease is as old as man, it comes into the world with him, adapts itself to changing environmental factors and finally becomes a fixed and specific disease.

When we realize the mycobacterium tuberculosis human type, is a pure parasite, that it can not multiply outside the human body, and depends entirely upon the human host for its propagation, this must in itself connote a long period of adaptation as old as Neolithic man himself; or at least covering that period when man turned from a Nomad and became fixed to the soil; when he crossed the threshold from savagery to barbarism, and began to live a communal life and lay the beginnings of civilization,—meagre and remote though they be. It must be manifest that a disease such as acute tuberculosis or phthisis florida must have been particularly virulent after it had gained a foot-hold and became adapted to its new environment. A disease so portentous and with such out-spoken symptoms and a conclusion of such universal finality, recurring again and again amongst a people would testify eloquently to its presence and make the least observant conversant with its manifestation. The over-powering lassitude, the racking cough, the burning fever, the malar flush, the drenching night sweats, the wasted frame, the frequent blood-spitting, and terminal diarrhea, were the unfailing signs of a doomed man.

When we come to seek written evidence of the disease, the records of antiquity are

singularly obscure on the subject. Renouard⁸ in his history of medicine, defines The Primitive Period, from the origin of society to the destruction of Troy, 1184 B. C. There is nothing in the records for certain covering this period that refers to phthisis. Some have thought that the disease was given a name that we are unable to recognize today, but the Canopic Jars⁹ in which the viscera were placed in Egyptian burials have not revealed evidence of the pulmonary form of the disease so far. The Code¹⁰ of Hammurabi, 2250 B. C., deals principally with the fees physicians are permitted to charge for their services.

Some have attempted to construe certain paragraphs as relating to tuberculosis, such as the bill of divorcement to the wife who becomes afflicted with disease and the reference to the blighting curse of Shamash; this however, is wishful thinking. There is nothing in the Biblical Record to indicate the existence of pulmonary tuberculosis, and yet the period in Egypt,—living under adverse conditions, overcrowding, and arduous labors, was favorable for the spread of disease. The Hebrew's well-known resistance to tuberculosis proclaims a long association with the disease and the development of an enhanced resistance. This however, may be obtained in a few generations and it is not necessary to stretch either the imagination or the records to the beginnings of recorded time. The Biblical Reference—"I will even appoint over you terror, consumption and the burning ague, that shall consume the eyes and cause sorrow of heart," (Lev. 26:16) "The Lord shall smite thee with a consumption, and with fever, and with an inflammation and with an extreme burning," (Deut. 28:22). These are descriptive enough but that they refer to tuberculosis is purely conjectural.

Stark tragedy stalks in the beautiful story of Ruth, and here are all the elements for the enactment of the tragedy of Tuberculosis. Naomi's husband dies, soon to be followed by his two sons. The Hebrew interpretation of the sons' names "Mahlon," a sick person, and "Chilion," wasting away, are significant, but not convincing. They lead us into the realms of fancy; but the pathetic fact remains, that since the story of Ruth, 1322 B. C., there have been innumerable Naomis bereft of their all, their grief unassuaged by the gentleness of a Ruth, and their penury unrelieved by the opulence of a Boaz.

When we come to Greek Medicine, we begin to find written evidence of the disease in the Hippocratic writings for phthisis was rife in Greece at this time. The writ-

ings of Hippocrates are not those of one individual, but rather a compilation of the thoughts and observations and practices of the period and are probably based on earlier manuscripts, which have since been lost. It is generally thought that they represent the remains of the library of the great medical school of Cos, to which he added his own contributions. He developed the humoral theory, as the causative factor of disease, which held sway for twenty centuries. He gave very accurate descriptions of consumption and described its various manifestations. He thought the disease was due to something dropping down from the brain into the lungs. There is a suggestion of an inherited constitution that led to the development of catarrhs and consumption, an opinion that prevailed till recent times.

In his book on Epidemics¹¹ he says "The severest and most troublesome disease as well as the most fatal, was the consumption. Many cases began in the winter and of these several took to their bed, though some went about ailing without doing so. Early in the Spring most of those who had gone to bed, died, while none of the others lost their cough, though it became easier in the Summer. During Autumn all took to bed and many died." He continues his treatise with a graphic description of all the symptoms of acute phthisis, even to the terminal edema of the extremities. He also noted phymata or tubercles in the lung in consumption and associated them with the disease, but had no idea as to their "relationship of cause and effect¹²." They had a rational treatment and regimen for the disease, consisting of rest, fresh warm milk, preferably goat's milk, light exercise and change of climate.

It is indeed strange, but there is nothing in the Hippocratic Manuscripts to indicate a belief or knowledge of contagion, especially in reference to tuberculosis. Hippocrates was familiar with the plagues; his contemporary, Thucydides, the historian, in describing the plague leaves no doubt as to its contagiousness. Isocrates¹³, an orator and a contemporary, expresses an opinion on the contagiousness of phthisis, that must have been current at this time. He, in speaking of his care of a consumptive, says "all my friends who came to visit me expressed their fear that I perish with him and pledged me to protect myself, telling me that most of those who had nursed this disease had become victims."

Later Greek Writers such as Aristotle (384-322 B. C.) noted the infectiousness of Tuberculosis as compared to such diseases as Malaria, Dropsy, Apoplexy. Egypt has

been well named the instructress of the human race. Greek Medicine and Greek Medical Ethics are traceable to an Egyptian origin, from whence came many drugs used by the ancient physicians. Similarly but to a much greater extent, Roman Medicine was derived like her civilization from the Greeks. The most outstanding figure in Roman Medicine was the gifted and brilliant Greek Physician, Galen (129-201 A. D.), a voluminous writer and an indefatigable investigator, especially in animal dissection and experimental physiology. He recognized the infectiousness of tuberculosis for he states that "it is dangerous to live with consumptives." His authority in Medicine became so absolute that he dominated medicine for many centuries. Unfortunately he formulated erroneous ideas on the circulation, the spirits in the blood and the necessity for laudable pus in the healing of wounds, these became Galenic tradition and acted as an effective check on further investigation and progress in medicine.

The Classical or ancient period may be said to close with Galen (131-201 A. D.). It may not be amiss to digress for a few moments to note the storm-gathering on the northwestern frontiers of the almost outworn Roman Empire. The Goths were exerting pressure from the North and burst across the Danube in 247 A. D. and achieved signal victories. Held in check temporarily the next century saw successive raids until the Roman Empire was over-run by the barbarians from the North in the fourth century. Following the collapse of the Roman Empire, we enter upon that dark historic night that covers the next six centuries. War, pestilence, famine, earthquakes, comets, social disorder, rapine, murder, filth, the streets a veritable open sewer; man ground under the despot's heel, plundered by predatory Barons, outlawed by ban and interdict; miserable, illiterate, superstitious, God-forsaken. Is it any wonder that with a mind benumbed and befogged, and a body racked with disease and mysterious maladies (1021 A. D. the dancing sickness) that man should believe in portents and signs, and that all his ills are the result of sin, and that he is being punished by an avenging Jehovah.

Is it any wonder that under these circumstances and conditions that no new or original investigations should develop in medicine; and yet genius cannot be suppressed. Even in times of the so-called Dark Ages, when to give tongue to new ideas was heresy, men of superior intellect produced work of the highest quality. We might note in passing the rise of Islam¹⁴

under Mohammed, which in 125 years extended from India to Spain and from the borders of China to Northern Africa, the development of Arabian Medicine, the translation of the Greek Medical Treatises and the Galenic works into Arabic. The great Arabic Universities attracted many Christian students and Arab philosophy had considerable influence upon the Universities in Europe. The Arabs discovered alcohol, potash, nitrate of silver, corrosive sublimate, nitric and sulphuric acid. They developed the Arabic Numerals, invented the zero, the decimal system, algebra, spherical trigonometry, invented the pendulum, and worked in optics. They built observatories and made notable astronomical contributions, such as calculating the angle of the elliptic and the procession of the equinoxes; to say nothing of their work in metals, textiles, glass, pottery, pharmacy, tinctures, essences, syrups and scientific farming.

We are indeed indebted to the Arabs for much; and as in our day, our civilization is the summation of the best of all lands; so with the rise of Islam, the Arabian conquests brought them in contact with Greek Literary Traditions, first through Syrian translations, and it was through them that much of Hellenic Medical Science had been preserved and to which they themselves made no inconsiderable contribution.

We must also note the rise of Christianity, the development of Monastic Life, particularly St. Benedict and the Benedictine Monasteries, who favored the collection of manuscripts and caused them to be copied and how this flourished under Cassiodorus¹⁵ (490-885) A. D.). The Monastic Orders developed schools that offered elementary education, some of which were to break away later from the church to become the great universities. The spread of the Benedictine Orders, in the 7th and 8th centuries was considerable. Medicine became Monastic, and in a chaotic world we find them as centers of light, multiplying and storing books, and raising the standard of living. They kept the flame of medicine burning, feeble though it was; for wherever Benedictine Monasteries were established they were centers for the study and practice of medicine, and here the Ancient Medical Manuscripts were likewise studied and preserved.

Of original ideas there were none, but the Medical teachings already extant, were preserved.

Medicine received a tremendous impetus in the Eleventh Century from Constantine¹⁵ of Africa (1010-1087), born in Carthage, widely traveled, steeped in the

wisdom of his day and hence looked at askance. He escapes assassination, flees to Salerno, Italy, finally retires to Monte Cassino, which had been founded by St. Benedict,—finding Monastic life congenial to him he became a Monk and devoted himself to the translation of the Medical Works from Arabic into Latin; as a result the practitioner of that day (1087 A. D.) became acquainted with the aphorisms of Hippocrates, his prognosis and dietetics, Galen's commentary on the Hippocratic writings and Galen's great work on therapeutics. These became the text books at the School of Salerno; they had a revivifying effect, and stimulated the production of an extensive literature.

So far we have attempted to trace the story of tuberculosis indissolubly linked with the history of medicine and of mankind,—from primitive man through Egypt, Greece, Rome,—a digression into Arabian Medicine, the medicine of Rahazes and Avicenna back to Medieval Europe; the so-called Dark Ages; is it any wonder that tuberculosis should thrive under the circumstances and conditions that obtained during this era.

The extent of their knowledge of tuberculosis at this time was that it was a chronic wasting disease,—that it attacked principally adolescents and young adults, that it occurred in communities and congested areas, that it was not known among savages,—and since most of those who fell ill of it invariably died, it was considered incurable—and as it had a tendency to recur in family after family, they considered that it was inherited. To their limited knowledge any and every wasting disease was consumption. Such was the prevailing concept up to the Renaissance.

This as you recall was a remarkable period in the world's history. It deals with the fall of Constantinople in 1453, the capital of the first Christian Emperor of Rome, the eviction of the Greek Scholars by the Turks, and their flight into Europe; the rediscovery of the classics by Western Europe, their influence on literature, and its dissemination enormously facilitated by the prior invention of printing about 1440. The development of Italian Art; the substitution in astronomy of the heliocentric system of the Polish Physician, Copernicus for the geocentric system of Ptolemy; there was an awakened and insatiable passion for study; the development of the humanities; the introduction of the Mongolian discoveries of gun powder, paper, and the mariners' compass, the expansion of navigation and the discovery of new continents beyond the seas; all this coming together or in rapid sequence, gave

man a new dignity, a new conception of his divine rights,—liberty of thought and freedom of conscience, that was to shake of the shackles of feudal and ecclesiastical despotism and finally abrogate the doctrine of the divine right of Kings.

Is it any wonder then that Medicine, always dignified and unselfish, should partake of the same stimulus?

The pre-renaissance anatomies were based largely on animal dissection and were full of Galenical errors. The revival of human dissection in the beginning of the Fourteenth Century gave medicine the impetus it needed.

Since tuberculosis was a very common disease it is only natural that a number of these would fall into the hands of the anatomists. Some like Valsalva (1666-1725) and his pupil, Morgagni (1682-1771) avoided dissecting consumptives for fear of infecting both themselves and their students. It is logical that with such dissections an increasing familiarity with the pathological changes must have occurred. Hippocrates had described the essential changes in the tissue as *phymata* and this had been translated by Galen as *tubercle*, a more or less generic term for swelling.

About this time any and all chronic wasting diseases were listed as "*Tabes*." Morton¹⁶, a celebrated English physician (1637-1698) published in 1694 an excellent treatise on consumption, "*Phthisiologia*." In it he describes eleven different kinds of consumption.

Sauvages, (1707-1767) a French physician, divided wasting disease as *tabes*, *phthisis*, and *marasmus*. He listed twenty-one different types of consumption. He was evidently influenced by Morton's work.

Franciscus Sylvius¹⁷ (1614-1672), Professor of Medicine, University of Leyden, (1648-1672) wrote a memorable Monograph "*De Phthisis*." He noted these misconceptions in his day. He says "we must understand that the name *phthisis* is not to be given to every emaciation, but on the contrary only to that which follows ulcer of the lung." He describes tubercles and the formation of *vomica* by liquifaction necrosis of these. In course of time it was generally understood that tubercles were associated with tuberculosis.

Gaspard Laurent Bayle (1774-1816), a famous French physician, wrote an excellent work on tuberculosis. He corrected many of the erroneous ideas extant and reduced the number of the different kinds of consumption to six. He is credited with advancing our knowledge of tuberculosis

more than any other of his day. He died of consumption at the age of 42.

William Stark¹⁸, a young English physician, who died early in his career, left invaluable monographs on the pathology of tuberculosis. His observations were made about 1765-1770. He noted the avascularity of tubercles, that large cavities were in the posterior aspect of the chest; that the posterior portion of the upper lobes were most frequently affected, that the vessels became obliterated frequently as they entered cavities and that the lung was hepatized adjacent to the lesions.

Matthew Baille¹⁹ (1761-1823) says in his morbid Anatomy (1795) "There is no morbid appearance so common in the lungs as that of tubercles. These consist of rounded firm white bodies interspersed through their substance."

Hence since there were many types of consumption, so there were many types of tubercles; small white round bodies, yellow friable bodies, cheesy patch, ulceration, cavitation; how explain the diverse pathological picture.

Confusion continued in regard to tubercle and tuberculosis until a commanding genius in the person of Rene Hyacinthe Laennec²⁰ appeared upon the scene in the early nineteenth century.

Laennec was a consumptive himself and finally succumbed to the disease in his forty-sixth year. His interest in pathological research was greatly accentuated by his discovery of the stethoscope. By this means he was able to separate the five major diseases of the chest. He was able to correlate auscultatory findings with his pathological findings. Laennec showed that all tubercle was a unity. From the white small rounded tubercle came cheesy patch and from cheesy patch came cavitation,—and conversely from cheesy patch could come small isolated tubercle. He showed further that cavitation in the top of the lung must perforce be the oldest lesion and those just below this was of a later date and the fine pinhead tubercles scattered in the base of the lung must be the most recent of all.

Laennec died in 1821 and did not live to see the general acceptance of his doctrine—the "*Unity of Tubercle*."

Preeminent in the field of Nineteenth Century Medicine was the brilliant versatile Rudolf Virchow. His development of cellular pathology revolutionized pathological concepts. He unfortunately allied himself against the doctrine of Unity of Tubercle.

He believed tubercles could originate

from many diverse causes, and that they were not related necessarily to tuberculosis. Virchow's influence in the medical world was such that it materially retarded the advancement and investigation in regard to this disease.

In 1865 Jean Antoine Villemin, a French Army Surgeon, desiring to enlarge his knowledge in reference to phthisis resorted to animal inoculation; a procedure which was not greatly in vogue in his day. His meticulous work revealed that tuberculosis was transmissible by inoculation. He went before the French Academy of Medicine 1866 and again in 1867, stating that he had taken pieces of tuberculous tissue and tuberculous sputum and had inoculated these into rabbits and had reproduced the disease. Unfortunately his hearers were not prepared for such revolutionary findings, and accused him of false reasoning. But Villemin was not to be denied. He published his findings in 1868 and was supported in his observations by Klebs.

About this time Julius Friedrich Cohnheim, a German Pathologist, had come to the fore. He had been Virchow's assistant and later became Professor of Pathology at Kiel, Breslau and Leipzig. He was a brilliant and independent investigator and while he had failed previously (1869) in confirming Villemin's work he reinvestigated the problem in 1877. On this occasion he inoculated the anterior chamber of the rabbit's eye where he could watch the evolution of tubercle from day to day. He confirmed Villemin's work and because of his prominence it was accepted that tubercle was infectious and was due to a specific virus. He also predicted the discovery in the near future of the infecting agent. This signal honor was reserved for Robert Koch, who in the winter of 1882 was successful in discovering the tubercle bacillus, for the simple reason he was able to stain it. Other competent investigators such as Edwin Klebs had attempted this previously, without success. Koch then set about the cultivation of this organism, and by his persistence was again successful. He was able to have it fulfill what later became known as Koch's Postulates. Then and then only did he publish his findings.

As is common in such cases, innumerable investigators applied themselves to the examination of tuberculous material such as Ehrlich, Metchnikoff, Rindfleisch, and Nocard. It soon developed that the organism could be stained easily and rapidly with hot aniline dyes. (Rindfleisch 1883).

Later the method was evolved by Ziehl-Neelsen (1885) which made it possible for any individual however inexperienced to stain the organism. Investigation soon revealed that there was more than one type of tubercle bacilli. Mafucci, an Italian, recognized an avian strain and Theobald Smith, an American, subsequently isolated a bovine strain. It seemed feasible since the lungs were the most common site of infection and that these communicated with the outside air, and that the sputum contained the organism, that therefore the sputum perforce must be the source of infection and that this was brought about by inhaling the germs in a dried state. Cornett set out to prove this, but his inhalation experiments of infected dust did not satisfy normal human conditions. For decades, debate raged in regard to which was the most frequent avenue of infection, inhalation or ingestion, and the argument today has not been settled to the satisfaction of all. Flugge developed the droplet infection hypothesis, but was unable to substantiate his theory by animal experimentation. While intense activity reigned in the laboratory, very little was being done in the treatment of the disease, and it continued to be the captain of the hosts of deaths, a heart-breaking burden to the family, and a cross to the physician.

The treatment at this time differed but little from the time of Hippocrates. Slowly the sanatorium idea evolved. Brehmer in Europe and Trudeau in America were pioneers in this field. Both, however, were antedated by George Bodington, who in 1840 advocated fresh air in the treatment of tuberculosis. Considerable exercise was prescribed at this time.

Thirty years ago the treatment consisted of rest, fresh air and forced feeding. Rest in many of these cases being wholly inadequate for the simple reason that the patient was permitted to be up on exercise after he had had seven consecutive days normal temperature.

James Carson of England in 1821 suggested the idea of Pneumothorax for the control of hemorrhage; since this antedated antiseptics (1867) it is well that its application was deferred. It remained, however, for Forlanini of Italy (1882) to develop the idea and place it on a sound basis.

Saugman, a Dane, added the monometer which facilitated the introduction of air and indicated the intrapleural position of the needle. As with most modes of treatment it was reserved at first for the terminal stage case, but later was adopted

for the moderately advanced patient, and today is utilized by some in minimal lesions in the adolescent. It was soon realized that the number of favorable cases was small and that there were many inadequate pneumothoraces, due to adhesions.

Dr. Jacobsen in 1913 introduced intra-pleural pneumonolysis for the cutting of such adhesions with a galvanocautery. Since a moderate number of these developed empyema it was not particularly well received at first.

Today it is a well accepted practice wherever pneumothorax is being given, and has a very low incidence of complications in competent hands. For those unfortunate cases in which pneumothorax was not feasible due to a symphysis of the pleura, surgery began to be advocated. Here again pioneering was necessary and the far advanced case again became the victim. De Cernville²¹ in 1885 is credited with initiating this procedure. The old Brauer-Friedrich (1907) operation had an operative mortality of 29.6 per cent due to extensive resection resulting in mediastinal flutter. This made the operation prohibitive.

Later Max Wilms in 1911 came forward with his Columnar resection, which was a paravertebral resection of the ribs over the diseased area. This lowered the mortality and produced moderately good results; although subsequent observations indicated that the operation was inadequate in many cases. Thoracic Surgery developed rapidly under many competent hands; Sauerbruch, Archibald, and John Alexander to mention but a few. It was soon realized that the ribs could be resected almost in toto providing fewer ribs were taken at a sitting and the operation graded to the patient's condition and the character and extent of the disease. Where cavities were small and one was reluctant to sacrifice the ribs, plombage came into vogue. Theodore Tuffier, of France, performed this operation in 1891 without a filling and later with a permanent filling in 1910. Various agents were used such as balloons, gauze packs, muscle and fat implants and finally paraffin by Baer in 1913, which has proved successful, and is the accepted filling today.

Scaleneotomy had a short lived vogue, and has since been discarded.

Since the basis of all treatment of tuberculosis is rest for the diseased lung, it was evident that the pumping action of the diaphragm and the consequent contraction and relaxation of the lung was a detriment to this principle. It had previously been determined that patients did not experience any dyspnoea under the influence of

a well conducted pneumothorax. This led to the idea of controlling the lesion in certain cases with an attempt to paralyze the diaphragm on the affected side as suggested by Stuertz in 1911. This was accomplished by identifying and evulsing the phrenic nerve, after noting that cutting gave negligible results. Phrenic exaeresis suddenly became the practice, and phrenic nerves were evulsed wholesale. Experience soon taught that in certain cases a return of function of the paralyzed diaphragm was desirable. Other operators had been experimenting with crushing the phrenic nerve (Friedrich 1914), the results were satisfactory; for in those cases where healing had not been complete, the nerve could be recrushed. This procedure has almost superseded permanent paralysis of the diaphragm except in a few cases in which it might be indicated.

In course of time it was noted that there was a limit to the size of the cavities in the upper lobe that might be collapsed by paraffin implant. If these were too large sloughing occurred. In consequence in the past three years extra-pleural pneumothoraces have been induced by stripping off the endo-thoracic-fascia from the apex to almost the base of the lung and holding this collapse with frequent refills of air. With the increased danger of empyema several operators have now resorted to the substitution of mineral oil for air as soon as the cavity has become dry.

Prior to this experimentation had been carried on in substituting oil for air in certain cases of pneumothorax, especially those complicated by empyema and in reexpanding pneumothoraces. A. Bernou in 1922 perfected the technique and designated the procedure as oleothorax. Like all new procedures, it had its enthusiastic followers, so much so, that its author has found it necessary to warn the profession of its limitations.

On the medical side of the ledger the medical and laboratory advances have been significant but less spectacular. It was natural that men should turn their thoughts to a cure; Koch's lymph or tuberculin (1890), heralded as a cure, was a cruel disappointment and hastened the demise of many unfortunates. Tuberculin later became better understood and had an extensive use in the treatment of the disease; today it has been entirely superseded by collapse therapy and is used only in the treatment of certain extra pulmonary lesions. Koch, Mantoux, Calmette and Von Pirquet demonstrated its value as a diagnostic agent and various investigators by this means showed the extent of tuberculous infection in certain centers.

A revived interest in mass surveys by Chadwick and Zachs in recent years showed an appreciable decline in tuberculous infection in the population in the younger age group in America.

Tuberculous Enteritis was a serious complication prior to the advent of collapse therapy. Brown and Sampson indicated its incidence; resection by Archibald proved disappointing; later heliotherapy and ultra violet radiation proved curative in favorable cases, and subsequently M. McConkey's (1930) supervitamin diet in the form of cod liver oil and tomato juice proved equally efficacious and decidedly more available and economical.

Time does not permit even an enumeration of all the so-called cures that have been foisted on both victim and profession alike. If hope springs eternally in the bosom of the young, it dwells perennially in the soul of the consumptive.

Thirty years ago we had nothing positive or specific to offer the victim, climate was the vogue; family resources were depleted to send the sufferer to the rigorous winters of the North or to the balmy climes of the South-west, or to some enchanted isle in the South Seas. In sheer desperation they grasped at every drug, method or device that held out any promise of relief from a disease that was dragging them to the grave. They became an easy prey of every charlatan. We find them inhaling powered dusts of carbon and calcium; ozone from ozone machines,—shutting themselves in chambers and inhaling weak fumes of formaldehyde, using Abram's electro magnetic devices, undergoing roentgenotherapy. Friedman's ((F. F.) turtle bacillus with which he claimed to cure tuberculosis, was a cruel deception; aided by an astute publicity agent and favorable press notices, numerous patients in this country were victimized. The profession, however, was skeptical and it was soon disclosed to be without merit.

The success of Chemotherapy in protozoal diseases naturally led to its application in tuberculosis; here the conditions are entirely dissimilar. Chemotherapy is only successful when the organism is accessible in the blood stream. In tuberculosis the bacillus is highly resistant, protected by a waxy and lipid covering and hidden in the characteristic tubercle formation that is notoriously avascular. Copper, methylene blue, and iodine compounds have been tried without avail. Mollgaard's Gold Salt or Sanocrysin was given to the public in 1924. A similar or the same preparation as sodium auro thiosulphate had been isolated in 1845. Like all its predecessors it

had its enthusiastic champions; it proved to be a dangerous drug, a metallic poison, and without effect in the treatment of this disease. The observation that exudative lesions cleared following its administration did not validate the claims, as these lesions are usually asymptomatic and invariably clear of their own accord. Every new drug that has appeared on the market has been tried on the tuberculous, from mercurochrome intravenously to sulfanilamide by mouth, and Maragliano's (1895) and Marmorek's (1903) antiserum, arsenic in the form of sodium cacodylate and chaulmoogra oil. The old theories of demineralization keep cropping up; and an attempt to combat them with diets such as Gerson-Hermansdorfer-Sauerbruch diets which represent a salt poor, low carbohydrate, low meat, high fat, high vitamin and rich calcium diet has some merit, but not sufficient to win general acceptance.

All, all have been tried without avail. We stand confounded before this infinitesimal speck of matter, the tubercle bacillus, that defies all the efforts of the chemists, bacteriologists and allied sciences to strike the morbid shackles from mankind and free him forever from this plague that has taken an enormous toll from time immemorial. We may paraphrase the Davidic panegyric and say "war has slain his thousands, and the tubercle bacillus his tens of thousands" (I. Sam. 18-7.)

What of the future? The only immune individual is the tuberculous individual. B. C. G. vaccine is a logical step in this direction,—it will take a generation or two to prove its efficacy.

Chemotherapy is not promising despite the phenomenal advances made in this field, and yet if we cannot attack the organism after it has become entrenched, it may be possible to alter the soil so as to make it inimical to its propagation. From the work of Rene J. Dubos²² in attacking gram positive organisms with his gramicin acid and gramicidin may evolve something in the future in regard to the tubercle bacillus.

Leprosy has been controlled by enforced isolation,—a disease not nearly as infectious or dangerous as tuberculosis; Bovine tuberculosis has been eliminated where one has willed to eradicate it by the means at our disposal. The problem is not so simple in the human. I take it that most of us have been infected by the thirtieth year,—it is possible that many of us may be bacilli excretors. It is certain that today we do not know all the avenues of infec-

tion in tuberculosis and in fact, what makes tuberculosis.

Paul Romer²³, an outstanding investigator in tuberculosis, concluded "that there is evidently some mode of transmission of this disease with which we are as yet unacquainted" and Fishberg sums up the situation by saying—"we are more and more becoming convinced that phthisiogenesis is more a problem of predisposition than of bacterial infection."

I feel that further control rests with the profession; we must realize that it is a public health problem, and while we resist state medicine as alien to the patient and the common good, we must consider some form of coercive legislation that will control the careless and wilful consumptive who considers it his inalienable right to roam at liberty and spread contagion in his wake. Every advance in human life and endeavor has been taken at the expense of some specialized group; these have been temporarily dislocated, thrown out of employment, and have suffered not of their own free will, but because of necessity.

Witness the riots in Liverpool following the introduction of the power-cotton spinning machinery. Progress means hardship for some; it is natural that groups should resist inroads in their field where they believe that they by right enjoy special prerogatives.

If we are to control tuberculosis we must know its hiding and abiding places. We must find the open case and endeavor to protect his contacts. A conservative estimate would be to say that two per cent of the population have manifest tuberculosis. The only way of adequately finding these cases is by the universal application of X-ray examination; with standard film the cost would be prohibitive; with micro film using 35 millimeter and fluorography, the cost is within the range of every community. In materials, every man, woman and child can be fluorographed at a cent apiece; the cost plus personnel and equipment would amount to less than ten cents each. The profession should go on record as demanding a fluorographic picture of every man entering the draft, and a re-X-ray of the chest on discharge. A comparison of the films would enhance our knowledge of the evolution of phthisis and would prevent the Treasury being mulcted out of millions in benefits for individuals whose subsequent tuberculosis had no connection with service.

The disease can be controlled by universal fluorography, coercive legislation for the isolation of open cases either in the home or institution.

Such, in brief, is the Evolution of Our Knowledge of Tuberculosis, a disease that has ravished mankind for all time, that has taken his millions from infancy to senescence, in every age, in every clime, in every social strata and walk of life—a disease that still remains inscrutable, inexorable, but not unconquerable.

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THE MANAGEMENT OF PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

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INTRODUCTION: Although diseases of the coronary arteries have been observed at the post-mortem table for more than a century, and although isolated reports concerning the clinical picture induced by acute occlusion of these vessels with infarction of the heart have appeared from time to time, it was not until comparatively recently—within the past three decades, that clinicians began to appreciate the frequency and importance of the symptom-complex associated with this disorder. The medical profession is indebted to Dr. J. B. Herrick (1912) for his pioneer work in describing the symptoms and signs of myocardial infarction and for his correlation of the clinical picture with the post-mortem findings. An important advance in this field was made possible by the experimental studies of F. N. Wilson and his colleagues (1936), who introduced into

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electrocardiography the precordial leads, which were promptly applied to the study of myocardial infarction by Woolferth and Wood (1932). However, so much has been learned in recent years about the clinical picture that even without the aid of the electrocardiogram, the diagnosis of coronary thrombosis can now be made with a high degree of accuracy at the bedside in a great majority of patients.

CLINICAL PICTURE: Males are predominantly affected although females are by no means immune, women constituting about twenty to twenty-five per cent of the instances in my own experience. The disease is most common after the age of 55 but is not infrequently observed in younger subjects. I have seen a few instances of coronary thrombosis occurring in patients in the fourth decade of life, and rare cases appearing before the age of 30 have been reported in the literature. The disease seems to be more common in white persons, although Negroes are not immune. The importance of occupation is a disputed question but most observers believe that coronary thrombosis is especially frequent in members of the professional and business groups. I have had the impression, which I am not able to prove by statistics, that unusually healthy men engaged in "high-pressure" activities who have been athletic in younger life but have later stopped taking regular physical exercise and have gained considerable weight, are especially predisposed.

The most important symptom of the disorder is pain, which usually resembles that of angina pectoris in being of constricting character. Rarely, it may be described as crushing or burning and occasionally as aching. Typically, the pain is felt beneath the sternum or in the pre-cordial region. It frequently radiates to the left shoulder and left arm, less commonly to the right shoulder and arm. Radiation to the lateral aspect and back of the neck is not at all uncommon and the occurrence of pain in the region of the suprasternal notch is frequent. One of the common sites for the maximum intensity of the pain is the lower sternal region, and associated with this there is often violent pain in the upper abdomen. Rarely, the pain may be entirely abdominal with no radiation to the chest or arms. The severity of the pain is very variable. Usually it is intense but in some patients it is mild, being described only as a dull ache and sometimes as a feeling of choking beneath the sternum. Painless coronary thrombosis is probably a much more common phenomenon than is generally realized and in such an instance the

diagnosis may be difficult. Ordinarily the pain is not affected by nitrites and this is an important factor in differentiating instances of coronary thrombosis from angina pectoris.

Aside from the pain the next most important group of clinical manifestations are those associated with alterations in circulatory dynamics. In almost all instances the blood pressure is elevated during the initial hours of the attack but subsequently there is usually a decline to a level considerably below the ordinary value for the patient. This initial rise followed by a subsequent decline in the blood pressure is an important point in differentiating coronary thrombosis from many conditions which simulate it in some respects. When the blood pressure begins to decline it often falls to extremely low levels and sometimes becomes immeasurable. In such instances the phenomena of circulatory collapse are usually outspoken, the skin being cold and clammy with an ashen, cyanotic tinge; the pulse rapid, feeble and thready, and the patient apathetic, stuporous or even unconscious. This circulatory state, which may be termed "cardiac collapse," resembles in most respects the condition of a patient with surgical shock, but differs in that there is evidence of congestion either in the systemic veins or in the pulmonary vessels in patients with coronary thrombosis, while such signs are universally absent in surgical shock or in the circulatory failure which ordinarily complicates febrile diseases. Aside from venous distention the important evidences of systemic congestion which may occur are enlargement of the liver and edema. However, these signs of engorgement in the systemic channels occur in a minority of people. Much more common are the manifestations of engorgement in the pulmonary vascular bed. (The reason for this is that the disease commonly affects the left ventricle and when this chamber fails the lungs become engorged.) Although the pulmonary vessels are not subject to direct inspection, they produce indirect signs which furnish accurate information as to the presence and severity of congestion in the lungs. The most important of these signs are dyspnea, rales in the lung bases and cough. Congestive heart failure does not usually appear in patients with small myocardial infarctions. However, when the artery occluded is large with a subsequent wide-spread infarction the co-existence of the signs of circulatory collapse plus those of congestive failure occurs characteristically and when appearing in association with the

pain in the chest, is practically diagnostic.

Other clinical manifestations which occur in most instances are those which are referable to tissue destruction. These consist of fever which is usually mild and ordinarily appears two to four days after the onset of the pain, leucocytosis which is ordinarily slight, and increase in the sedimentation rate. The latter is one of the most constant signs of the disease and is of value in prognosis and as to when to make the decision to let the patient out of bed. Unfortunately, increase in sedimentation rate occurs in so many other conditions which also produce pain in the chest and upper abdomen that it is of relatively little value in diagnosis. Another sign due to tissue destruction, and in this instance to necrosis near the surface of the heart, is a pericardial friction rub. This is usually faint, appears two to seven days after the onset of the disorder, and frequently disappears within a few hours.

Changes in the rhythm of the heart occur in more than one-half of the cases. The most common alteration is frequent premature beats. However, the several degrees of heart block, auricular fibrillation and ventricular tachycardia are all occasionally observed in patients with coronary thrombosis. Since most of these arrhythmias can be successfully treated one of the most important principles in the management of the disease is to watch for their development.

Electrocardiographic changes occur in a great majority of instances. The most characteristic sign is elevation of the S-T interval in the limb leads, which is later followed by inversion of the T-wave. However, this sign—the so-called Pardee phenomenon—is by no means a constant finding and more frequently changes occur in the S-T intervals and the T-waves in the fourth lead. It is possible in many patients to predict with a high degree of accuracy which part of the left ventricle has been affected by the proper interpretation of electrocardiograms. It is important to remember, however, that characteristic electrocardiographic changes are absent in a sizeable proportion of the patients and that such absence should not deflect one from the diagnosis of myocardial infarction if the clinical signs are typical.

In a minority of the patients with myocardial infarction the disease extends to the endocardial surface of the heart, produces fibrin deposition, and consequent thrombus formation. Such thrombi may break off and lead to embolism in distant parts of the body. Fortunately, this complication is relatively rare.

DIFFERENTIAL DIAGNOSIS: One could write a text-book of medicine about the conditions which may be confused with coronary thrombosis and how to distinguish them. Only a few of the more important common ones can be named here. Because of the fever and the pain in the chest a false diagnosis of pneumonia is sometimes made. However, the pain is different in character, being unrelated to respiration and having a constricting quality absent in the usual pleural pain of pneumonia. The lesser degree of temperature elevation, the history of angina pectoris in the past, which can be elicited in more than 50 per cent of the patients, the absence of the characteristic sputum and of the classical physical signs in the lungs, etc., usually render the differential diagnosis easy. Pulmonary embolism may simulate coronary thrombosis closely and both conditions may appear suddenly and be associated with severe pain and circulatory collapse. The electrocardiographic changes may be strikingly similar in the two disorders. Both conditions may follow operations on the extremities or in the pelvic region. This differential diagnosis is very difficult in those patients who only live a few hours, but it can usually be made with accuracy if the patient survives for a longer time. Dissecting aneurysm produces a pain even more violent than that of coronary thrombosis in most instances. It is usually a rapidly fatal condition but in rare cases attacks of pain may occur at intervals for weeks and cause great confusion. Eventually the pain of dissecting aneurysm usually radiates into the abdomen and legs. It is ordinarily crushing or tearing in quality rather than constrictive, but even so the differential diagnosis may be extremely difficult. Various abdominal conditions may simulate coronary thrombosis, the most important of these being perforated duodenal ulcer, and especially gall bladder disease. The latter often exists in people with coronary disease. I have known a patient who had gall bladder colic on one occasion and subsequently had coronary thrombosis. I have seen one patient who had gangrene of the gall bladder and coronary thrombosis at the same time. In such instances the decision may be extremely difficult but ordinarily the conditions can be differentiated by the clinical characteristics of the pain.

PROGNOSIS: This is one of the most treacherous of all diseases. A patient may be moribund, pulseless, with inaudible heart sounds and no evidence of vitality except an occasional respiratory gasp, for a period of many hours and still recover.

Another patient may be progressing in the most favorable manner and die unexpectedly several weeks or longer after the attack. Hence, the prognosis should always be guarded and reserved. As a general rule the outlook is better the younger the patient. The appearance of severe congestive heart failure is an ominous sign. A blood pressure persistently below 90 systolic is not a favorable omen, although I have seen many such patients recover. The outlook is usually grave in patients who become stuporous and especially so in those who are actually unconscious. Regardless of the severity of the illness the outlook is rarely completely hopeless and for this reason continued and heroic efforts at treatment are indicated.

TREATMENT: Rest in bed for a period of several weeks is practically always indicated. In patients over 70 it is probably wise to use a shorter period of complete rest than in younger subjects. Ordinarily, rest in bed is desirable for a period of three to four weeks after all manifestations of the active disease process have disappeared entirely. However, in some patients the sedimentation rate of the red blood corpuscles does not return to normal for many months, and in such patients, if other signs are favorable, activity may be allowed after six or eight weeks in bed.

The diet can be neglected for the first day or two. After that the patient should receive liquid food at frequent intervals. I have repeatedly noticed that the pain tends to recur if the stomach is overfilled, and on the other hand, that pain often appears when the patient goes for too long a period without food. After the first weeks a six-meal diet consisting of small feedings of soft food is indicated. In rare instances fluids need to be forced because the kidney function becomes diminished as a result of the low blood pressure. Ordinarily, however, fluids should be restricted to twelve to fifteen hundred cubic centimeters of total liquid per day.

Oxygen has little or no value in the mild cases. However, in the severe cases with marked pulmonary edema and intense dyspnea and cyanosis an oxygen tent for a few days may be life-saving.

The most important drugs are the opiates which should be administered freely during the first few days in order to relieve the pain. After this barbiturates should be substituted, the dose and frequency of administration being gradually reduced as conditions permit. It is often advisable to maintain small frequent doses of barbiturates for a period of two weeks or longer in order to allay the anxiety of the

patient. In most instances nitrites have little value in combating the pain. However, I have usually prescribed them routinely in small doses (nitroglycerine 1/200th grain every four hours) with the idea of trying to promote the formation of collateral circulation and to make the infarct as small as possible. Aminophyllin administered by mouth does not usually affect the pain but in an occasional patient this drug given intravenously will cause marked relief. Aside from its parenteral use in such instances it is worth giving for the first three or four weeks routinely in doses of 1/10th gram three to four times daily with the idea of trying to favor the development of collateral circulation in the heart. The experimental evidence concerning the effect of this drug in animals with experimentally produced coronary occlusion is conflicting. Since constipation frequently occurs and straining at stool constitutes a severe strain on the heart and may rarely lead to cardiac rupture, mineral oil should usually be prescribed freely. Quinidine is a valuable drug when properly used in patients with coronary thrombosis. Since the drug seems to favor the development of heart block, it should not be used routinely in patients with infarction of the posterior part of the heart—as shown by the electrocardiogram—because such patients tend to develop heart block. However, in patients with anterior infarction quinidine should be given whenever there is a tendency toward premature beats as there is considerable reason to believe that patients with coronary thrombosis who have frequent premature beats are those who are most apt to die suddenly from ventricular fibrillation. Quinidine is invaluable in treating paroxysmal auricular fibrillation when it occurs, and also in treating one of the most dreaded complications, paroxysmal ventricular tachycardia. It is contraindicated in patients with auricular fibrillation of long standing and in persons with posterior infarctions with or without delayed auricular conduction or actual heart block. When the latter condition ensues it should be treated by small doses of adrenalin together with the use of ephedrine by mouth. Glucose is sometimes of value in patients with extremely low blood pressure and, aside from its nutritional benefits, it may initiate urine flow in such individuals. Digitalis is contraindicated during the acute stages except when congestive failure makes its use imperative, and even then the drug is relatively valueless in most patients. When a patient already receiving the drug develops coronary thrombosis the ordinary main-

tenance dose of digitalis should be continued.

The story of coronary thrombosis constitutes an important example of the rate at which medicine advances. Regarded only a few years ago as a pathological curiosity and clinical rarity, it is now known to be a common condition which can be diagnosed with a reasonable degree of accuracy and treated with fair success.

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INTESTINAL OBSTRUCTION

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Intestinal obstruction, or ileus, is a convenient clinical term which includes all pathological lesions associated with complete or incomplete blockade of the intestinal tract. This blockade is responsible for pathological changes and clinical symptoms which are common to all types of obstructive lesions. Each lesion, however, has its own peculiarities and a comparison of some types reveals an entirely unrelated etiology, varying pathology and quite contrasting symptoms.

Before dealing further with this subject I feel that it would be well to pause and briefly review the anatomy and the physiology of the intestinal canal. The small intestine starts at the pylorus and ends at the ileo-cecal valve comprising approximately twenty-two feet of gut. It is divided into three parts: duodenum, jejunum and ileum. The blood supply to the duodenum is derived from the right gastric artery and the superior pancreaticoduodenal branch of the superior mesenteric artery. The nerves are derived from the coeliac plexus. The jejunum and the ileum receive their blood supply from the superior mesenteric artery. The nerve supply is derived from the plexus of sympathetic nerves around the superior mesenteric artery. From this source they run to the Auerbach plexus of nerves and ganglia and from this secondary plexus, Meissner's plexus, is derived. This plexus lies within the submucous layer of the intestine.

The large intestine extends from the end of the ileum to the anus. It is about

five feet long or roughly one-fifth of the entire extent of the intestinal canal. Its caliber is largest at its commencement at the cecum, and gradually diminishes as far as the rectum where there is a dilatation of considerable size just above the anal canal. The divisions of the large intestine are as follows: cecum, ascending colon, hepatic flexure, transverse colon, splenic flexure, descending colon, iliac sigmoid, pelvic sigmoid, rectum, ampulla, anal canal. The arteries supplying the colon are derived from the colic and sigmoid branches of the mesenteric arteries. The rectum is supplied from the superior hemorrhoidal branch of the inferior mesenteric, the anal canal by the middle hemorrhoidal from the hypogastric and the inferior hemorrhoidal from the internal pudental artery. The nerves are derived from the sympathetic plexuses around the branches of the superior and inferior mesenteric arteries. They are distributed in a manner similar to that found in the small intestine.

In considering the physiology of the intestinal tract it may be considered in three divisions. The foregut extends from the mouth to the last three feet of the ileum and its chief function is to prepare the food for absorption. The midgut extends from the last three feet of the ileum to the splenic flexure of the colon and is concerned with the absorption of food. The hindgut, which is the balance of the gut from the splenic flexure of the colon to the anal orifice, is concerned with the final absorption of water and some of the inorganic salts, and with the storage and expulsion of the unabsorbed residue.

With these basic principles in mind we shall now consider the consequences of the blockade of this all important tract which traverses our body. First let us consider the etiology of obstruction in the intestinal tract. Generally speaking, the cause of intestinal obstruction can be discussed under three subdivisions. Adynamic, paralytic, or post operative ileus is due to undue handling of tissue, to fluid in the abdominal cavity or to the anesthesia. It is usually transient, cannot be diagnosed and is inconsequential. Paralytic ileus is a toxic condition due to poor nutrition of the gut wall or the mesentery. Dynamic ileus is very uncommon and is due to spasms or contraction of the gut as seen in lead poisoning. We now come to the most important cause of ileus, that is mechanical obstruction, which includes 95 per cent of all obstructions. 65 per cent to 75 per cent of these obstructions are due to post operative bands and adhesions. Herniation accounts for 15 per cent of cases

of mechanical ileus. Internal herniation occurs through fossae such as the ileo-cecal and through openings in the mesentery and peritoneum. External herniations appear as inguinal, femoral, umbilical and ventral hernias.

Tumors cause 10 per cent of the obstructions found after the age of 45. 90 per cent of these are carcinoma and 10 per cent are benign. The majority of the carcinomas occur in the large bowel increasing in frequency nearer the anus. 75 per cent of these tumors occur in the left side of the bowel and 50 per cent of them are palpable on digital examination via the anus.

Intussusception is usually seen between the ages of 2 and 4. It usually starts with a gastro-enteritis and over one-half of the patients have a palpable tumor in the epigastrium or on the left side of the abdomen. 20 per cent to 25 per cent of these masses can be palpated with the little finger in the rectum. 90 per cent of them have a bloody mucous diarrhea.

Volvulus occurs usually in elderly people who have been chronically constipated and in those who have long meso-sigmoids.

Obturation of the bowel with fecal impaction, coins, hairballs and other foreign bodies is seen occasionally.

Strictures due to lymphogranuloma, luetic ulceration, specific and non-specific proctitis may cause intestinal obstruction.

Mesenteric embolism and thrombosis are found in elderly people who have arteriosclerosis and heart disease. This condition is characterized by the passage of bloody mucus.

The fate of a patient with acute intestinal obstruction is more dependent upon an early and accurate diagnosis than on any other single factor. The time factor cannot be overstressed as every physiological and anatomical change associated with obstruction is cumulative and the prolonged operation of these changes diminishes the chance of recovery.

The classical picture of an advanced obstruction is unmistakable. There may or may not be a history of sudden onset with pain, shock and initial vomiting which is the peritonism triad. The patient is suffering with griping pain which is definitely colicky in nature. The initial vomiting in obstruction is reflex and is produced by stimulation of the vagal nucleus. The persistent vomiting which soon appears is one of the most constant symptoms of obstruction. The earliest explanation of the mechanism by which intestinal contents reach the stomach was that of reverse peristalsis. In the last century this view was replaced by the theory of the

"reversed central stream," according to which some of the contents of distended intestine are squirted back toward the stomach by forced peristalsis against an obstacle, this reverse movement taking place in the central part of the column of fluid. The higher the obstruction the more vomiting we will see. The amount of vomiting will be more or less guided by the level of obstruction. This persistent vomiting results in dehydration and loss of electrolytes. The chlorides in the blood stream equal approximately 380 mgm. per 100cc. blood. A loss of chlorides causes a profound weakness. They are regulated in the blood stream by the cortex of the adrenal gland, thusly, Addison's disease is simulated by a high obstruction with the usual severe vomiting. As a result of the persistent vomiting the sodium bicarbonate piles up in the blood stream causing an alkalosis and the symptoms of uremia will soon appear. This is all due to the chemical imbalance created by the obstruction. A low obstruction will allow an absorption of a large quantity of fluids, as previously mentioned, so the fluids are promptly vomited if they cannot be passed on into the large intestine.

Constipation, strange though it may seem, is the least reliable of the symptoms of obstruction. A patient with an urgent strangulation may have had a free action of the bowels a few hours previously; another may be constipated for more than a week yet suffer no obstruction whatever. Diagnosis of acute obstruction should be made within a few hours of its onset, therefore, we cannot wait for absolute constipation to become established. Nevertheless, we can always discover whether or not the patient has passed flatus since the onset of the illness. Peristaltic pain, in the absence of obstruction, is always accompanied by the passage of flatus; therefore, a patient with colicky pain who is unable to pass flatus is almost certainly obstructed. Nothing establishes the presence of a complete intestinal block with more certainty than the administration of two diagnostic enemas at an hour's interval. Feces and a little flatus will be expelled with the first enema, but the second one returns either quite clear or contains only one or two small particles of hard fecal material. The important thing is that no flatus at all is passed with it.

At this point I feel that more can be said about the pain associated with intestinal obstruction. According to Mackenzie all pain of visceral origin is referred, i. e. the spinal segment which supplies the diseased viscus becomes irritable and normal

sensory stimuli are interpreted as pain and referred to that part of the abdominal wall which is supplied by the same segment. Although this mechanism explains inflammatory pain it does not account for all of the painful sensations of obstruction. The intermittent colic associated with forced peristalsis is almost certainly a true intestinal pain produced by internal pressure. Similarly, the dull ache of paralytic ileus, and the continuous pain of mechanical obstruction between the attacks of colic, are probably caused by the increase of tension on the muscle fibers of the distended intestine. Further, sensory nerves run in the areolar tissue outside of the peritoneum and within the mesenteries, and there is little doubt that pain can be produced by traction, pressure or inflammation of these structures. The final pain is of course, caused by peritonitis, but at this late stage the patient's sensibility is mercifully very low.

A knowledge of these mechanisms enables us to explain, with some degree of accuracy, the painful sensations of the patient, also to correlate them with the various stages of the disease.

The more urgent cases have an acute onset, with sudden agonizing pain and shock, which can only be attributed to injury to the mesentery. Then comes the dull ache of intestinal distention, soon to be submerged into the griping, colicky pains of forced peristalsis which recur with a dreaded rhythm until the obstruction is relieved or the intestine becomes paralyzed. These griping pains are of the greatest possible diagnostic importance, since they appear quite early and constitute the outstanding symptoms of all mechanical obstructions. They are not relieved by measures which cure or alleviate simple intestinal colic. At a later stage the paroxysmal pain diminishes and the continuous ache increases, indicating a change-over from the period of intense peristaltic activity to that of extreme distention and beginning paralysis.

Next, let us consider the examination of the patient. A careful examination of the abdomen should never be omitted. Inspection in an advanced case usually reveals distention of the abdomen, but this is a sign which must not be waited for. In the early stage of obstruction the belly is flat and flaccid, and it is in this stage that diagnosis should be made. Considerable distention of the intestine may be present without obvious swelling of the abdomen. It is only in large gut and paralytic ileus that abdominal distention is of real diagnostic value. You will notice I said diagnosis should be made in the early

stage when the belly is flat and flaccid. Unfortunately, this is not done in by far the majority of the cases of intestinal obstruction because we, as a rule, do not have the opportunity of seeing these cases early. An early and significant sign is distention of individual coils. In thin people a distended coil may sometimes be seen through the abdominal wall, particularly when it is rendered prominent by peristalsis. This phenomena of visible peristalsis, when accompanied by colicky pain, is practically pathognomonic; unfortunately it is not often seen, except in thin people, or in acute obstruction supervening on chronic when it is exaggerated by the hypertrophied musculature.

Palpation may reveal localized distention or peristalsis when these do not appear on inspection. A distended and gurgling cecum can be palpated in most large gut obstructions, and occasionally a loop of small gut may be felt enlarged or contracting in obstructions of the ileum. The discovery of a mass or tumor is of value in the search for the etiology of an obstruction. A rectal examination should never be omitted; apart from the discovery of local growths and strictures this enables us to feel the pelvic viscera and perhaps to find distended loops or tumors of the lower ileum and pelvic colon. Palpation is also of value through the negative evidence it may afford. The absence of abdominal tenderness and rigidity is an important confirmatory sign of obstruction, since it at once excludes the inflammatory emergencies.

Auscultation through a stethoscope is a means of arriving at a diagnosis of intestinal obstruction which is used entirely too infrequently by the majority of physicians. This is an essential step in the examination of any acute abdomen. It is indispensable in the early diagnosis of obstruction. One should first familiarize himself with the distribution, tone and intensity of the normal sounds produced by the intestine; after this it is not difficult to detect abnormalities of intestinal function. Almost from the onset of a mechanical obstruction the intestinal sounds are louder and more frequent than normal. Peristaltic rushes can be heard, increasing in intensity as the site of the obstruction is reached, when an actual explosion may appear to occur. We are thus sometimes able to not only diagnose an obstruction, but to locate its site. Finally, nothing can be more striking than the contrast between the turbulence of a mechanical obstruction and the dead silence of peritonitis or paralytic ileus.

X-ray is a valuable aid in making a

diagnosis of intestinal obstruction and, once more, is a procedure which is not used as frequently as it should be. A flat plate of the belly will show paralleling, a step ladder pattern, in cases of small bowel obstruction; obstruction of the large bowel gives a horse-shoe pattern. Retrograde introduction of barium mixed with mineral oil is useful in making a diagnosis. Barium is never given orally for obvious reasons.

A complete diagnosis in cases of intestinal obstruction is just as important to the surgeon as a complete diagnosis of a cardiac lesion is to the internist. He is not satisfied with merely a diagnosis of heart disease nor should the surgeon be satisfied with simply the term intestinal obstruction. In arriving at a correct diagnosis we may ask ourselves four questions; First, is the patient obstructed? Second, is it a large or small bowel obstruction? Third, is the obstruction complete or incomplete? Fourth, is it a simple or strangulated obstruction? When these questions are satisfactorily answered we are then in a position to make a complete diagnosis. An example of such a diagnosis would be: simple, complete, small bowel obstruction.

The following are a few points which should always be kept in mind when examining a suspected obstruction. Intestinal obstruction does not cause a fever unless there is gangrene or peritonitis from intestinal soiling. If an abdominal scar is present it is probably a small bowel obstruction. If there is no scar suspect a large bowel obstruction. The normal large bowel will take a two quart enema without expelling it. The large bowel obstruction will vomit very little while the small bowel obstruction will vomit frequently. A Levine tube will suck a lot of material out of a small bowel obstruction and relieve the patient of his symptoms. A small bowel obstruction will appear suddenly and a large bowel obstruction usually appears slowly. The quieter the abdomen is to auscultation the more complete is the obstruction. The average patient with a strangulated obstruction is in some degree of shock and has a localized point of tenderness.

In dealing with the treatment of intestinal obstruction I shall do so briefly and in generality as each case is individual and no two cases are similar in every respect, therefore, the treatment will vary in many respects with each case. Much has been written and said about the treatment of intestinal obstruction but the mortality rate is at present 50 per cent and up which speaks for itself. We feel, however, that

the prime reason for this staggering mortality rate is due chiefly to the fact that we see most cases of obstruction late in the course of the disease, whereas, if they could be seen within the first few hours the mortality rate would be more in line with that of other surgical diseases of the abdomen.

The treatment should be considered under two general headings: namely, restore the physiological equilibrium and relieve the obstruction. Neither is satisfactory without the other. The water-chemical imbalance and the state of nutrition should be ascertained and restored to as near normal as is possible before considering any operative procedure. The persistent vomiting which is usually associated with intestinal obstruction results in dehydration and, as has been mentioned before, the loss of electrolytes. The fluids and electrolytes must be replaced prior to relieving the obstruction as the loss of chlorides, particularly, results in a profound weakness of the patient. To be brief the loss of chlorides and fluid can be readily replaced by the parenteral administration of saline solution. The loss of nutrition can be partly restored by the administration of glucose solution intravenously and subcutaneously. Since our present-day treatment of obstruction with distention of the gut consists of suction both pre and post-operative we must not lose sight of the fact that we are not only relieving the gaseous distention, we are also robbing the body of the fluids and chemicals which we are so anxious to preserve. Therefore, these fluids must also be replaced in the above mentioned manner. In addition to the replacement of fluids lost by vomiting and suction it is necessary to administer about 3000cc. of fluids daily which the patient normally needs. An additional thought concerning distention of the bowel may well be inserted here. The circulation of the portal vein is dependent upon the peristalsis of the intestinal canal and it is well known that a distended bowel loses its peristaltic action. In the presence of stagnant blood in the portal vein organisms which are normally destroyed in the liver are now given an opportunity to produce toxin. A distended bowel wall will become permeable to organisms and toxins which infect or are absorbed by the peritoneum. To prevent this distention of the gut wall is the only reason for using the suction tube. A patient should not have suction tubes inserted if there is no distention of the bowel.

In cases of strangulated obstruction protein material goes into the lumen of the

bowel then on into the peritoneal cavity. This will give the symptoms of shock as in severe trauma or burns. Saline alone will not help this patient—he needs blood to replace the lost proteins. To prevent the further loss of proteins the obstruction must be relieved.

In order to intelligently treat intestinal obstruction it is necessary to only remember four "S's": Suction, Saline, Sanguine and Surgery.

In considering the administration of fluids we ordinarily feel that only isotonic solutions should be used, with some exceptions of course. Many of us have fallen into the habit of ordering a solution consisting of 5 per cent glucose in normal saline. We know that normal saline is an isotonic solution as is 5 per cent glucose solution but we sometimes lose sight of the fact that 5 grams of glucose added to each 100cc. of normal saline solution produces a hypertonic solution so, in reality, we are adding a slight burden to body tissue when we administer the above hypertonic solution as this must be converted to an isotonic solution by the body before it can be used. To give a solution of chlorides and glucose which is isotonic it is necessary to order 2 1-2 per cent glucose in 0.45 per cent saline solution.

Surgery in cases of intestinal obstruction should be as simple as possible. If the cause of the obstruction is not obvious do an enterostomy above the level of obstruction and get the patient in good shape for an exploratory operation to be done at a later date. If gangrenous gut is present do a resection; if the patient is in good condition a primary anastomosis may be done. If the patient is a poor risk do an obstructive operation; later remove the clamps and still later repair the defect. In the case of a large bowel obstruction it is considered good surgery to pull out a loop of the cecum through a McBurney incision, later open this loop and decompress the gut, still later do whatever surgery is indicated. Time does not permit my going into detail on the many types of operations which are available in the treatment of intestinal obstruction. Let me emphasize, however, the importance of getting in and getting out as quickly as possible with the primary operation as the majority of these patients go to surgery in relatively poor physical condition despite all of our efforts to restore them to as near normal as possible.

In my opinion spinal anesthesia is as near the perfect anesthesia as we have in operating cases of intestinal obstruction. Local anesthesia should never be used.

PANEL DISCUSSION ON TUBERCULOSIS PATHOLOGY OF PRIMARY TUBERCULOSIS

BENJAMIN L. BROCK, M. D.

Louisville

Childhood type of tuberculosis, or as it is more correctly referred to, Primary Tuberculosis, is not the result of a single pathological process. On the other hand, Primary Tuberculosis results from a series of pathological processes which begin with the primary implantation of tubercle bacilli within the tissues of the body and continue through the development of primary tubercle and the spread along the lymphatics to the regional lymph glands, resulting in the formation of the primary complex.

Twenty years ago, the bovine tubercle bacillus was responsible in a great many instances for the development of primary tuberculosis in children. Today, however, practically all tuberculous infection is the result of an inhalation of the human type of organism. A comparatively few individuals may become infected through ingestion of the tubercle bacillus. The weeding out of tuberculous cattle from our dairy herds and the pasteurization of milk have reduced bovine tuberculosis in this country, at least, to the point where it is no longer a great menace to the public health. Cervical adenitis, for example, which was formerly so common, is rarely seen today on our children's wards.

It is a well known fact that primary anatomical tubercle may develop in lymphoid tissue situated in any portion of the lung field. The Gohn primary tubercle is to be found in the lower portion of the lung as well as in the apical portion. When tubercle bacilli are inhaled for the first time, they are carried into a primary lobule situated anywhere in the lung field. These bacilli cause no immediate reaction comparable to that which would occur if the lung tissues were hypersensitive or allergic to tuberculo-protein. The bacilli due to their size, are no doubt carried to the terminal anatomical divisions of the primary lobule, the alveoli pulmonum. William Snow Miller states that when carbon particles are inhaled it is, as a rule, only the finer particles that penetrate to the alveoli themselves. These carbon particles have been found by him not only within the cytoplasm of phagocytes within the alveoli but also lying free on the

surface of the epithelium covering their walls. It is logical to believe that tubercle bacilli entering the lungs for the first time are treated in like manner to any other foreign matter, and that they like the fine carbon particles are phagocytosed without causing a great amount of reaction. The bacilli are not fixed in the alveoli as in reinfection, but like the carbon particles are carried to the nearest lymphoid tissue.

If the bacilli are aspirated originally into the primary lobule, the nearest lymphoid tissue is located anatomically in the region around the terminal portion of the respiratory bronchiole or where the primary lobule begins. There are two sets of lymphatics of the lungs, a superficial set which drains a very narrow peripheral portion of the lung toward the pleura. If the bacilli should be carried initially by the phagocytes through these lymphatics to the small lymph follicles situated closely beneath the pleura, the first clinical manifestation which might result following the allergic inflammatory process is a pleurisy with effusion. This occurrence, however, is relatively uncommon for the reason that the bacilli are usually carried initially to the lymphoid follicle situated at the end of the respiratory bronchiole. From this region the deep lymphatics of the lung drain along the bronchioles and bronchial tree toward the lymph glands situated in the hilum.

If the tubercle bacilli inhaled into the primary lobule are in sufficient dosage, anatomical tubercle is a foregone conclusion since they are now within the closed lymphatic system and cannot be physically evacuated from the lungs, as would be the case if we were dealing with organisms of reinfection. Primary tubercle develops, therefore, in any portion of the lung field, apex or base, depending on the location of their lodgement. The future course in the development of the primary complex is therefore dependent upon the so-called immunity of the individual. For example, severe reactions are more frequently seen in the negro than in the white and the primary process may more frequently break through its barriers to produce a vicious reinfection type of disease. This may be due to a true genotypic difference between the two races as pointed out by Pinner and Kasper. Differences in inherent resistance of white individuals might account for the ultimate pathological processes developing in these individuals.

It is within the lymphatic system, therefore, that the real primary reaction oc-

curs. Healing may take place within the initially affected lymphoid follicles, or spread of the process to other lymphoid follicles along the walls of the bronchioles and bronchi, and finally to the hilum lymph nodes may occur. Although the original reaction to the implantation of the bacilli within the lymphoid follicle is broncho-pneumonic in character, the center of the focus within the lymphoid follicle is usually the only part containing the bacilli and the only part which becomes caseous. The pneumonic lesion in most instances together with bacilli from the caseous primary tubercle drains from the lung through the lymphatics along the bronchial walls to the glands in the hilum region. Bacilli may lodge in the chain of lymphoid follicles situated along the bronchial walls and set up an infection within them, as well as within the glands at the root region. Even though the pulmonary tissue itself is now hypersensitive, the lymphatic system is effective in most instances in preventing the development of reinfection tuberculosis. The great majority of children who become primarily infected with the tubercle bacillus go on to complete healing of the lesion. Myers, for example, estimates that one half the population of this country or 65,000,000 individuals have been infected with the tubercle bacillus, and therefore, have primary tuberculosis, and yet only 1 per cent of them, or 650,000 individuals, have an active reinfection type or adult type of tuberculosis. This is indeed a small percentage.

As the primary caseous tubercle heals calcium is deposited within it and in time it may become completely calcified. At the same time a dense fibrous capsule forms around the tubercle, thus protecting the individual from future spread of disease. The direct anatomical result of primary infection, commonly called primary complex, consists therefore of a caseous pneumonic or calcified focus in the pulmonary tissue and one or more foci in the tributary lymph nodes.

In the great minority of cases progressive spread from the primary focus to reinfection tuberculosis takes place. Spread from the primary lesion is usually by way of direct extension, through the lymphatics, or by way of the blood stream. Spread of reinfection tuberculosis on the other hand is usually bronchogenic in character. Rupture of a primary focus through the wall of a bronchiole or bronchus may result in a bronchogenic spread with a vi-

cious reinfection type of disease. Bacilli from a lymph node focus may be carried by way of the lymphatics to the thoracic duct and thence to the blood stream. Under such conditions the bacilli may cause single or multiple lesions in many of the organs of the body. Such multiple lesions in the lungs may be progressive but the usual result is absorption, fibrosis or calcification of them.

In later life these lesions appear as clinically inactive calcified foci. The rupture of a caseous focus into a vein or into the thoracic duct usually results in a generalized miliary tuberculosis.

DISCUSSION

PHILIP F. BARBOUR: How long after calcification takes place does the organism die?

B. L. BROCK: When the tuberculin test is done on individuals who have been previously primarily infected with the tubercle bacillus many will react in varying degrees to the test. Where a person reacts very faintly to the test it indicates that the primary tubercle has become so well wall-off from the normal tissues of the body that there is now very little interchange between the tubercle and the body tissues. When this interchange stops completely the tubercle bacilli within the tubercle die, and the tissues will no longer react positively to the tuberculin test. The tubercle is now healed and obsolete. Most individuals, however, once primarily infected with the tubercle bacillus, will always react to a certain degree to tuberculin.

PHILIP F. BARBOUR: What is the effect of measles, whooping cough and influenza on the primary tubercle?

B. L. BROCK: Theoretically, these diseases may break down the walls of primary tubercles and allow direct spread of the bacilli to normal tissues of the lungs.

ARMAND COHEN: What is the tuberculin reaction? Some apparently consider it a specific allergenic reaction while others consider it a non-specific reaction. If it is allergy, it does not answer the criteria of allergy as it is commonly thought of today.

Does the tuberculin test represent active tuberculosis one time and immunity at another?

Reuben L. Kahn of the University of Michigan in his book on Tissue Immunity, states that lower animals of necessity have acquired a high immunity to such common organisms as colon bacillus, staphylococcus, and streptococcus and that these animals give large local reactions when tested with

these organisms. The question then arises, if an individual is skin tested with bacterial proteins, do positive tests mean that the individual has immunity toward these organisms, or should he be concerned only with such bacteria as fail to give positive skin tests? There is much confusion about allergy to bacteria. Undoubtedly such allergy exists, but at present there are no skin tests or other tests adequate to demonstrate it.

BENJAMIN BROCK: I don't think allergy and immunity go hand in hand. You don't get reaction unless the person has previously been infected with the tubercle bacillus. No other disease will cause that individual to react to the tuberculin test.

MARGARET LIMPER: Explain how the individual with tuberculosis has a rupture into a large vein without causing general tuberculosis in the body.

BENJAMIN BROCK: If the gland breaks into the pulmonary vein which leads into the lungs, the organisms become more or less sifted out in the fine capillaries of the lungs. There are some in general circulation but so few in number they do not cause generalized tuberculosis. But if the gland ruptures into a vein leading into the left side of the heart, the organisms go into general circulation and then generalized miliary tuberculosis results.

O. O. MILLER: I have known many of these cases of hematogenous (non-miliary) tuberculosis to give a negative tuberculin test.

THE CLINICAL SYMPTOMS OF TUBERCULOSIS IN CHILDREN

W. W. NICHOLSON, M. D.

Louisville

Childhood tuberculosis is characterized by the lack of clinical symptoms more than by the presence of any definitely identifying symptoms. Perhaps the most important single clinical factor in establishing a diagnosis of tuberculosis in a child is the child's family history. It is extremely important that this history be complete and accurate. It is not sufficient simply to ask whether the mother or father has tuberculosis. To such a question the answer will almost always be no. Even today, in the minds of some people, it is still felt to be a reflection to have tuberculosis and its existence is frequently denied, as it is in syphilis. To get a reliable history concerning tuber-

culosis in the family contacts of the child, one should ask whether or not the father or mother has a cough, suffers from stomach trouble, or is in poor health in any way. Grandparents and other close relatives may be important because they may frequently visit in the home, or one or more of them may live with the family, thus subjecting the child to any communicable infections from which they may be suffering. Hence it is important to ascertain whether grandparents or other close relatives who may be associated with the child, are suffering from ill-health of any type. Nurse maids are important. Nurse maids are frequently changed, new nurse maids being usually accepted for trial periods, to see whether or not they will stay and are satisfactory, before they are required to undergo an examination to determine the existence of tuberculosis or any other communicable infection. In this way, children are frequently exposed to unrecognized cases of tuberculosis. Children may be brought in contact with persons suffering from infectious tuberculosis in the school. Teachers and other school employees may be hazards to children in school. However, in the present day, such school employees as foci from which tuberculosis spreads are becoming less and less a problem, because, through public health effort, they all are required to show reliable evidences that they are not suffering from active tuberculosis before they are employed. This is true not only in cities but is likewise in most rural communities.

As indicated above, childhood tuberculosis is most often marked by the absence of general symptoms. A child suffering from childhood tuberculosis may have a good appetite, may take food well and be in a well-nourished state. This is in marked contrast to what is usually thought of in tuberculosis concerning appetite, that is that the appetite is poor. In children, even in advanced tuberculosis, the appetite may still be good.

Fatigue may be one of the most important and constant signs of a tuberculous infection. If a child has a history of tiring easily, of coming home from school and not wanting to go out and play, of simply lying around the house and of being cross and irritable, the child should be suspected of suffering from tuberculous infection.

An afternoon temperature is not necessarily present in childhood tuberculosis. It is true that if there is a temperature, it will usually be low and will occur in the

afternoon. It is likely that most children who are suffering from childhood tuberculosis do not run a temperature.

Cough is not necessarily existent. If a cough does exist, it is very likely to be a dry unproductive cough with no expectoration.

In the physical examination of the child, underweight cannot be relied on; however, in children who are failing to gain properly the existent underweight should premise a suspicion of childhood tuberculosis. The skin should be closely scrutinized for the existence of the finely papular, almost pinpoint, papulo-necrotic tubercles which are evident in skin tuberculosis. If the tops of these lesions are removed, there will generally be left holes in their centers. If there is enlargement of the cervical glands, one should suspect tuberculosis. Splenic enlargement should arouse suspicion as to this disease. According to Parks, splenic enlargement in infants up to three months of age is very likely to be due to syphilis; such enlargement in an infant from three to six months of age is more likely to be due to tuberculosis than to syphilis; and splenic enlargement in children from six to twelve months of age is extremely likely to be due to tuberculosis.

Chest findings, as elicited by physical examination, are very unsatisfactory and unproductive of any reliable information in childhood tuberculosis, even in miliary tuberculosis, where one thinks that certainly auscultatory evidences would exist, there is almost always an absolute absence of such evidences. The stethoscope is practically useless in the diagnosis of childhood tuberculosis.

The sheet anchor in the diagnosis of childhood tuberculosis is the tuberculin test, followed by a properly taken X-ray film of the lungs of children who are found to be reactors. The tuberculin test is just as reliable in pointing to the existence of a tuberculous infection in infants and children as is a reliable serological test in pointing to the existence of a syphilis infection in children. A positive tuberculin test in children under one year of age almost certainly points to a tuberculous infection. Further, reaction to a tuberculin test in a child under one year of age should point out to the physician that the source of the child's infection is very likely to be one of his immediate family contacts, since the sphere of activity of such a child is largely limited to association with members of his own family or close associates

of the family. The X-ray findings in childhood tuberculosis are not within the scope of this discussion.

In the matter of laboratory findings, sputum examinations cannot often be made in suspected cases of childhood tuberculosis, because children do not expectorate. Children swallow such material as is coughed up from their lungs, hence the examination of stomach washings may disclose the tubercle bacillus.

In summary, may I point out that the diagnosis of childhood tuberculosis depends upon:

1. History, especially family history, which is extremely important if properly taken.

2. Physical examination, which may or may not reveal any informative aid in diagnosis.

3. The tuberculin test which is absolutely essential, leading to a correct diagnosis of childhood tuberculosis.

4. An X-ray film of the lungs which is also essential in arriving at a correct diagnosis.

All these factors should be considered in establishing a diagnosis of tuberculosis in a child.

DISCUSSION

PHILIP F. BARBOUR: The child with a low temperature and loss of weight; does anything else give that picture besides tuberculosis?

W. W. NICHOLSON: Any number of conditions will give such a picture, among them are chronic sinusitis, foci of infection in tonsils, low grade pyelitis, cystitis, Hodgkin's disease and intestinal parasites.

PHILIP F. BARBOUR: I have heard nose and throat men say that they have found tabs of tonsil tissue remaining after the removal of tonsils which have harboured infection and caused children to run low temperature.

W. W. NICHOLSON: This is entirely possible; however, it has not been my feeling that it is probable. I think the important thing to remember in this connection is that the child needs all his lymphatic tissue up to five years of age, and when tonsils and adenoids are removed early in childhood, there is a tendency to regrowth of these tissues. Both tonsils and adenoids are frequently removed in early childhood when only the adenoids should have been removed, and this because of the mechanical obstruction to breathing which the adenoids caused.

PHILIP F. BARBOUR: I have, in the past,

had tonsil tabs removed. May I also point out that Dr. John L. Morse of Harvard has said that a low fever may be due to forms of intestinal intoxication.

EXTRA PULMONARY TUBERCULOSIS

LEE PALMER, M. D.

Louisville

Tuberculosis can involve practically all tissues of the body, therefore Extra Pulmonary Tuberculosis is a very large subject and but little space can be devoted to some of the more important tuberculous infections.

Cervical Adenitis is seen much less frequently now than formerly because of the intensive fight against tuberculous cows, the pasteurization of milk and also because of the decreased incidence of tuberculosis in the human family. This disease usually occurs after the age of two years and is most often primary but may be secondary. The glands most commonly involved are those in the vicinity of the carotids and under the upper part of the sternomastoid muscle; the disease process may spread to involve other glands. The onset is insidious, the glands slowly enlarge. Early they are small, discrete, slightly tender and the overlying skin is not involved. Later they fuse with their neighbors and lose their separate identity. In favorable cases the process becomes quiescent and the lesions calcify or fibrose. In less favorable cases the glands continue to enlarge, become soft and fluctuate with inflammatory changes in the overlying skin. These abscessed glands may result in discharging sinus. Finally a slow process of healing sets in and the process ceases to show activity. During this time the temperature is slightly elevated.

The diagnosis is made by: history of exposure, consideration of symptoms, Tuberculin Test, X-ray for calcium deposits in the glands or occasionally by biopsy.

Tuberculosis of the Pleura is a very common and frequently overlooked condition which as a rule is secondary to pulmonary disease. It is the result of tubercle bacilli finding their way from the lung out onto the pleura which is already sensitive to tuberculo-protein. Here acute inflammatory processes are set up and effusion often develops. During childhood pleurisy may develop following primary intrathoracic tuberculosis within a short time after it invades the lungs. When this occurs the pleu-

ral involvement is usually benign and tends to become latent. From puberty on tuberculosis pleuritis occurs more frequently associated with and secondary to pulmonary tuberculosis of reinfection type. Pleural effusions that develop without a preceding pneumonia are tuberculous in character in the majority of cases. The symptoms may be so mild that a physician is not called. Again the effusion may be so small that it can not be detected on physical examination nor by fluoroscopic and X-ray examination. So, many times on X-raying the child chest pleural changes are found such as thickening and adhesions which indicate that the child had pleurisy with effusion that had been absorbed though the patients were not aware of it. Again some effusions absorb leaving no demonstrable pleural change by X-ray, therefore, negative X-ray does not rule out pre-existing effusion. Also adhesion can occur without pre-existing effusion and one must bear in mind that tuberculosis is not the only cause of pleural changes. On the other hand the onset of the pleuritis is often characterized by pains associated with respiration. The pain which may be excruciating is more marked early in the disease and in cases with dry pleurisy and tends to disappear when the effusion develops. There may be considerable temperature elevation for a few days. If the patient is seen while the pain is present the only physical finding may be lagging of the chest wall and friction rub over the involved side. When the pain has disappeared signs of fluid are usually elicited.

Prognosis is usually good when associated with a primary pulmonary tuberculosis but the course may be very stormy and the outlook not so good when associated with miliary or extensive destructive pulmonary lesions and here the ultimate fate would depend on how the patient took care of his general infection.

Tuberculous Peritonitis is practically always the result of a secondary infection of the peritoneum from some near by or remote focus especially from mesenteric lymph nodes. It occurs most frequently between two and four years but does develop at other periods of life. The onset is usually insidious and the course tends to be chronic. Early, the symptoms are an irregular low grade fever, anorexia, constipation or diarrhea, loss of weight, abdominal pain accentuated on exertion. Progressive enlargement of the abdomen is a common

manifestation in cases which have a tendency to develop large amounts of ascitic fluid. This fluid is translucent, straw colored as a rule with a specific gravity of about 1.025, contains albumen and numerous white blood cells. Tubercle organisms are hard to find except by culture or guinea-pig inoculation. The peritoneum is lusterless, injected and slightly roughened at first. In cases of longer standing it may be covered with discrete gray or yellowish tubercles; the omentum is also sprinkled with tubercles. Other cases have a strong tendency to develop adhesions with marked thickening of omentum with enlarged and caseous glands. The course is complicated often by partial or complete intestinal obstruction due to adhesion. The prognosis in these cases is not very good. The diagnosis is made by history, clinical features, examination of aspirated fluid with culture and guinea-pig inoculation. X-ray may also be helpful.

Miliary Tuberculosis is a very destructive form of the disease. It occurs usually in infancy and early childhood and is always preceded by a primary tuberculous complex which renders the tissue sensitive. Some part of this complex as a caseous gland ruptures into a blood vessel or a lymphatic duct and thus sends a shower of tubercle organisms to the various organs of the body. These organs are sensitive to tuberculo-protein and therefore multiple inflammatory reactions are set up that are overwhelming in nature. The disease develops rapidly and early diagnosis is difficult. The temperature is usually elevated; there may be persistent bronchial irritation and later loss of weight. Very few or no physical signs are found and even the X-ray may be negative at this time. Later however, because of the large number of tubercles scattered throughout the lungs the X-ray will show the typical stippling characteristic of miliary tuberculosis.

Tubercle organisms may be found by throat swabs or from stomach washings. Early in the disease the tuberculin test is strongly positive but becomes progressively less marked as the disease advances. Occasionally there may be some alteration in breath sounds and impaired resonance and rales heard. More often, however, the physical examination is negative.

The duration of this disease is usually two to six weeks. The course is steadily downward and the end is usually death. More than fifty per cent of the children who die of tuberculosis die of this disease.

Tuberculous Meningitis ranks as the

most uniformly fatal of the various reinfectious types occurring in man. It accounts for about fifty per cent of the deaths from tuberculosis occurring in young children. It is most frequently a part of a miliary process.

These children have a rather indefinite group of symptoms. The child is fretful, does not want to play, is not interested, has a poor appetite, is constipated, has unexplained attacks of vomiting, becomes more stuporous, has symptoms that suggest involvement of the meninges with changing neurological findings. He cries out in his sleep from pain; becomes progressively worse with stiffness of the neck, bulging of fontanelle and other definite findings of meningitis including the characteristic spinal fluid findings. Finally there is marked emaciation, opisthotonos, extremely high fever, coma, and death.

Many other conditions could be discussed under this subject but there is not sufficient space.

PHILIP F. BARBOUR: Changes in the personality are quite interesting. So many mothers have told me that a fall on the head has caused meningitis.

LEE PALMER: The fall plays no part in the infection.

AUSTIN BLOCH: What is the relationship of tuberculosis to phlyctenular conjunctivitis?

LEE PALMER: Tubercle bacilli are not present in these lesions. The conjunctivitis is an allergic reaction to tuberculo-protein. Most patients with phlyctenular conjunctivitis have a positive Tuberculin Test.

TREATMENT OF TUBERCULOSIS IN CHILDREN

OSCAR O. MILLER, M. D.
Louisville

May I make a few remarks about the tuberculin test?

The incidence of positive reactors in the Louisville Schools is as follows: The Grade School 19 per cent; Junior High 26 per cent; High Schools 32 per cent. If the child has tuberculo hypersensitivity 91 per cent will react on the first test, namely 0.1 milligram; by resorting to the stronger dose of 1 milligram 9 per cent more reactors will be picked up.

I intend to limit my discussion to the general run of cases seen by the practitioner: the child with a positive tuberculin test and a positive X-ray, showing calcifi-

cation, and not about the acute cases. The vast majority of these cases give no symptoms at all. There is a tendency in the presence of a positive tuberculin test to ascribe all the child's symptoms to his tuberculous infection. Such children are usually asymptomatic, if symptoms are present, every other possibility should be eliminated first. Given a child with a strong positive tuberculin test (35 mm in diameter with marked induration) with X-ray evidence of calcification in the lung field and at the hilus; what are we going to do about it? I would say nothing, and then qualify it by saying, such a child does not need to be put to bed to heal something that is already potentially healed. He needs observation. If underweight, one should endeavor to bring this to 10 per cent above standard for his age and height. Vitamins are definitely indicated, particularly cod liver oil one to two teaspoonfuls daily from September to the end of April, depending on the age, nutrition and economic status of the patient. For the child that is markedly underweight, or one that fatigues easily, a rest period in bed during or after school is desirable.

Additional food or additional rest are important factors in improving nutrition. Vitamin C is definitely indicated in tuberculosis; it is capable of exact assay and is deficient in clinical tuberculosis. Tomato juice and orange juice are satisfactory sources; where clinical symptoms obtain 50 mg. of cevitamic acid three times daily is indicated. In children with tuberculous infection who are definitely overweight, the vitamin concentrates should be substituted. It is needless for me to emphasize the importance of calcium; especially in the form of milk. This in the main, will care for the average child with tuberculous infection.

For those children who have manifest tuberculosis such as exudative lesions or pleurisy with effusion, bed rest is to be enjoined for several months or until such time as the lesion shows more or less complete absorption and clearing. Even in patients with fever, bath and lavatory privileges may be permitted. The chief consideration in all these cases is constant supervision and bi-yearly fluoroscopic or X-ray examinations throughout the teen age.

The physician in charge of these children, as in any other contagious or infectious disease, owes it to the family to arrange for the examination of the contacts

in order to endeavor to uncover the source of infection.

DISCUSSION

PHILIP F. BARBOUR: What about the child with tuberculosis infection going to school? Is it safe?

O. O. MILLER: It is a misfortune to say he has tuberculosis. He has tuberculous infection from which he has developed a relative immunity. By all means the child with primary tuberculous infection that has healed may go to school. They have no effect on the other children.

J. D. HEITGER: In checking with X-ray for caseous tubercles, do you find that?

O. O. MILLER: Yes, we consider these unstable and re-X-ray these children every three months or oftener; in course of time they either absorb or become calcified.

Recently the Clinic followed a group of children known to have exudative tuberculosis. The records go back to 1926. These children were called back for re-X-ray to see what had happened to them. There were 11 males and 9 females. There were 17 between the ages of two and ten; 3 between 10 and 15. All have cleared, only one developed adult tuberculosis, that was a boy 16. If you take the cases Myer quotes, which were in contact with open infection, 15 per cent developed tuberculosis, but 85 per cent escaped clinical tuberculosis.

M. J. HENRY: Will Dr. Miller please state if primary childhood tuberculosis confers immunity to adult tuberculosis? Also, does he often see pulmonary tuberculosis in persons having had tuberculous cervical adenitis? I have heard Dr. A. B. Moore, who for many years interpreted the roentgenograms of the chest made at the Mayo Clinic, say, that one rarely finds pulmonary tuberculosis in those who have had suppurative tuberculous cervical adenitis.

O. O. MILLER: In bovine tuberculosis, and in primary infection a relative immunity exists; the individual becomes refractory to further exogenous reinfection. The whole B. C. G. program is predicated on that fact. Today we see very little cervical adenitis. Anybody with glandular lesions, ought to have, and in fact, does have an excellent prognosis as far as clinical pulmonary tuberculosis is concerned.

The oldest drug prescription known is a stone tablet, inscribed in cuneiform dating 3700 B. C., bearing directions for making an inhalant for treating a head cold.

DISCUSSION OF THE SPRUE SYNDROME

MORRIS H. THOMPSON, M. D.

Louisville

The interest of clinical medical men and medical research workers in the deficiency states is aroused anew. We have long known the beneficial effects of replacement therapy. The curative effect of liver in pernicious anemia, of vitamin A (carotene) in xerophthalmia and night blindness, vitamin D in rickets, vitamin C in scurvy is familiar to us all. Recent separation of the vitamin B complex into its component factors has led to individualistic specific therapy for beri-beri, pellagra, and the riboflavine syndrome. The discovery of vitamin K and the application of its clinical curative effect in the bleeding tendency in jaundice and other functional and organic gastro intestinal disturbances with bleeding is finding daily application.

Along this general line a discussion of the sprue syndrome particularly from the physiologic standpoint should prove interesting.

Sprue is a diseased state characterized in advanced cases by flatulence and gastro intestinal indigestion, weakness and mental depression, great loss of weight, diarrhea, glossitis, a macrocytic hyperchromic anemia and neurological changes varying from tingling paresthesia and numbness of the hands and feet, to the characteristic postero-lateral sclerosis which is seen in pernicious anemia.

At once it becomes evident that there is some common relationship between sprue and pernicious anemia. Actually, however, there are more points of difference than of similarity. In pernicious anemia there is always a true achlorhydria, whereas in sprue hydrochloric acid can usually be demonstrated in the stomach after histamine stimulation and the incidence of the absence of free hydrochloric acid in this disease is no greater than in a group of normal individuals. Diagnostically of great importance is the fact that in sprue there is an increased tolerance for carbohydrates, that is, the glucose tolerance curve is flat. In pernicious anemia the glucose tolerance curve is essentially normal. In normal individuals after administration of 1.58 grams of glucose per kilo of body weight on a fasting stomach the blood sugar levels which are normal (80 to 120

mgs) before ingestion of glucose rise within $\frac{1}{2}$ to 1 hour to a level of 160 to 190 mgs then fall rather rapidly so that at the end of 2 to 3 hours the blood sugar has again reached fasting levels. In sprue the initial sugar level is low normal as a rule, and the rise after glucose does not occur so that plotted curves are flattened.

The great weight loss of sprue is not seen in pernicious anemia. In sprue the bodily fat stores are depleted and a loss of from one-third to one-half the body weight is not uncommon. The patients in advanced cases are veritable walking skeletons. In pernicious anemia the weight loss is but moderate. Diarrhea may occur in pernicious anemia but exhibits no particular characteristics and responds to the administration of hydrochloric acid. The diarrhea of sprue on the other hand is characteristic. The stools are bulky, frothy, foul smelling and light in color and tend to occur in the early morning hours. There is a marked increase in the fat content. The normal stool contains 25 to 30 per cent of fat. In sprue the fat is increased to two or three times this amount. The fat is broken down so that lipolysis is normal, indicating that fatty digestion is going on normally. This has been proven true as the digestive ferments are found present in the stools in normal amounts. There is no increase in excretion of undigested protein in the stools yet these patients suffer from protein body starvation as indicated by the low specific gravity and protein contents of the blood serum and the resulting clinical nutritional edema disturbances seen. This suggests the probability that the defect of food handling in the intestinal tract in sprue is one of absorption rather than a disturbance in digestion of foods.

The blood picture, the glossitis and neurological findings of sprue are identical with those of pernicious anemia. It may reasonably be assumed that some common etiological factor exists in both diseases but that an additional factor is operating in sprue. These facts will be touched upon later.

Sprue has variously been described as tropical and non-tropical. The two diseased states are identical. The confusion has arisen from the fact that most studies of the disease have been carried on in tropical countries where sprue is frequently seen and recognized. Ashford favored the view that a deficiency in the diet of protein with a preponderance of starches and fats produced an intestinal state favoring the growth of a yeast like

fungus, monilia silicosis which he demonstrated in cases of sprue and thought responsible for the characteristic resultant clinical picture. Castle and Rhodes in their studies in Porto Rico could not substantiate Ashford's theory of the action of monilia. Feeding experiments were conducted which produced a clinical state simulating sprue in all respects. The concensus of opinion at present is that there is no acceptable evidence proving sprue to be anything other than a deficiency state and consequently non-infectious. It must be emphasized that sprue occurs in this country probably much more frequently than recognized, masking as neurasthenia and functional gastro intestinal states.

Pathologically in sprue there occurs atrophy of the mucous membrane of the gastro intestinal tract, atrophy of the liver and frequently ulceration of the large and small intestine. Enormous dilatation of the terminal colon is not uncommon. There is marked depletion of the body store houses for fat. Excepting in children the bone marrow shows the same hyperplastic megalocytic changes found in pernicious anemia. The colonic dilatation so often seen in adult sprue suggests some relationship between this diseased state and coeliac disease or chronic intestinal indigestion in children.

A consideration of the pathological findings, of stool examination, of bone marrow examination obtained by biopsy and dietary history obtained from sprue sufferers gives some inkling of the etiology and an explanation of many further clinical findings. The bone marrow obtained by sternal puncture as aforementioned is not different from the megalocytic hyperplastic marrow of pernicious anemia. Since the etiology of pernicious anemia has been fairly well worked out, this predisposes in sprue a lack of an extrinsic factor from food which combines with an intrinsic factor present in gastric mucosa for the production of a substance necessary to proper blood formation. This material is absorbed and stored in the liver and certain other tissues of the body. The thermo or heat label factor (gastric) is probably secreted from the pylorus of the stomach and duodenum. Its nature is unknown. The thermo stable extrinsic or food factor is present in many natural vitamin B sources as meat, eggs, cereals, etc. In sprue since we have shown a defect in assimilation of foods the extrinsic food factor is presupposedly chiefly affected. But since from a pathological standpoint atrophy of the mucous

membrane of the intestine occurs and a defective liver function is suggested by the atrophy present and clinically by the disturbance in the metabolism of carbohydrates as demonstrated by the flattened glucose tolerance curve and these facts certainly suggest a lack of the intrinsic factor also. The fact that sprue responds to liver therapy suggests also a lack of intrinsic factor.

The blood findings then can be explained on the same basis as those of pernicious anemia. A deficiency in the B factor (extrinsic) may explain the neurological findings.

The part played by atrophy of the gastro intestinal track as a factor and a faulty absorption or assimilation of foods which apparently have been completely broken down has already been touched upon. It is interesting that these patients usually give a history of having existed for a period of time upon a diet high in carbohydrates and fats and deficient in protein.

With regard to the stools as before mentioned the stools contain an excess of fat, although lipolysis is normal and the digestive enzymes in the stools are present in normal amounts. Faulty absorption of fats may lead to a deficiency of the fat soluble vitamins A and D so that certain inflammatory eye conditions as a result of carotene lack may be seen. Lack of fat soluble vitamin D might lead to faulty assimilation of calcium and phosphorus so that osteoporosis, rickets and tetany may all be seen. Tetany is usual with low blood calcium levels and a relative retention of phosphorus. Whereas in rickets the serum calcium and phosphorus levels are both low as a rule and the calcium phosphorus ratio is below 40. A calcium phosphorus ratio (that is the product of the blood calcium and phosphorus levels) above 40 excludes rickets.

There is sometimes seen a bleeding tendency in these cases which was formerly as in jaundice thought due to calcium fixation. More probably however it is due to frank ulceration of the gastro intestinal tract or in some cases to a lack of the anti-hemorrhagic vitamin K which is not properly absorbed due to a deficiency in the bile or to failure of the liver properly to synthesize prothrombin. Certainly in these cases from a pathologic standpoint we find atrophic livers and clinically the flattened glucose tolerance curve suggests a disturbance either in glycogenesis or glycolysis of sugars. As a result of flattening of the blood sugar curve there is a

lack of the normal protective mechanism and symptoms of hypoglycemia may occur. The blood pressure is usually low in these cases and the B. M. R. subnormal. There is evidence of a general metabolic let down.

Low specific gravities of the blood serum and lowering of serum protein blood levels may also produce any picture of generalized anasarca. As has been implied it is interesting that protein digestion is normal in the intestine, the low serum protein blood levels being due to dietary limitation of protein as well as to faulty absorption. Serum phosphorus levels are usually low. Calcium is low in the blood stream and in untreated sprue is excreted in excess in the stools.

In fully developed sprue then, we see an unhappy asthenic mentally depressed patient with great loss of weight. The skin is grapefruit colored, there is continual indigestion and diarrhea. The abdomen is protuberant and the bones show through the body surface, the tongue is beefy red with marked papillary atrophy and sensitive to hot and cold foods, subject to infection and aptheous eruptions. Paresthesia of the hands and feet are complained of. The patients often complain of intolerance to cold and all the symptoms secondary to an anemia may be present. It is easy to understand how in early cases their numerous complaints are so vague as to be explained upon the basis of a neurosis.

With regard to differential diagnosis fully developed sprue is unlikely to be confused with any other deficiency state. Pellagra has some similarity but the skin lesions of pellagra are characteristic and their response to nicotinic acid dramatic. Addison's Disease presents many similarities with weakness and low blood pressure, gastro intestinal disturbances. But the pigmentation of Addison's is different, usually a graying or browning of the skin, most marked on unexposed surfaces and mucous membranes. The glucose tolerance curve is flat in Addison's Disease but a study of blood chlorides and potassium levels should avoid any confusion. With underfunctioning adrenals, of course there is potassium retention and the blood chlorides are low, usually below 160. In pancreatic inflammatory states steatorrhea may occur but here the glucose tolerance curve is diabetic in type and examination of the stools shows a marked increase in undigested protein muscle fibers. In intestinal or mesenteric tuberculosis a similar picture may occur but the glucose tolerance

curve is not low. The anemia is hypochronic and tuberculosis elsewhere in the body may be demonstrated.

With regard to the treatment of sprue the most satisfactory treatment is the use of liver extract supplemented by large doses of iron. In general the cruder extracts give the best results. I have failed in one case to produce a reticulocytosis in using an adequate dose of the concentrated extract which is effective in pernicious anemia. Much larger amounts of liver extract than are necessary in pernicious anemia are required to produce a response and treatment must be continued for long periods of time. Under treatment the patient gains weight, well being and strength. The diarrhea checks and the glossitis clears, papillary regeneration occurring. The color index falls and the reticulocytes increase in the blood stream. The diet in sprue ideally should be high vitamin and high caloric. At first, due to fatty indigestion, fats must be limited sharply, sometimes to as little as 50 grams.

Carbohydrates also may have to be reduced. Easily assimilated proteins should be pushed. B complex, in fact all the vitamins, seem to hasten recovery. Calcium and phosphorus are valuable at times when there is an indication for their administration. In the case of nutritional edema and initial very low count blood transfusions may be of value.

THE SURGICAL TREATMENT OF PEPTIC ULCER

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Medical problems that lend themselves to differences of opinion even to the point of inciting and stimulating controversy are always of great interest. If progress is to be made in the clarification of the many questionable features that present themselves in the consideration of these problems controversy and frank expressions of opinion must be encouraged; and it behooves all of us in the interest of science and our own erudition to lend patient and sympathetic ears to the voices that cry from the wilderness and whose only purpose is, each in its humble way, to do all in his power to reveal the truth and dispel the mystery.

That a consideration of the surgical treatment of peptic ulcer leads all other medical problems in its controversial character

no one can deny. The most important and perhaps the only uncontradicted statements with regard to peptic ulcers are those in connection with its anatomical and physiological location, and that these quite typical ulcers occur only in that portion of the gastro-intestinal tract which may be exposed to the action of hydrochloric acid.

If we are to gain to the fullest whatever benefit is to be derived from the intense interest that manifests itself by the myriad of opinions that continue without interruption to flood medical literature it seems logical that we should, at regular intervals, recapitulate so to speak, to check up what has been submitted for our consideration and to sift from the available reports those facts upon which there appears to be some semblance of unanimity of opinion and those regarding which differences continue unabated.

Having discussed the subject of the surgical treatment of peptic ulcer before this body some ten years ago the writer felt it might be of interest, at this time again to consider the matter from the point of view of its present status and particularly in the light of opinions expressed in the previous report.

In the interest of brevity and also because it is in the consideration of this phase of the subject that the chief differences exist, only those problems pertaining to duodenal ulcer will be discussed in this report. At this point please permit me to quote from my previous report on this subject: quote, "It is the writer's firm belief that the enthusiasm for gastro-enterostomy will wane during the next few years, and that in ten years from now gastro-enterostomy will be used for the treatment of pyloric and duodenal ulcers as a make-shift operation and not as the method of choice. The clinical results following the more radical procedures are so infinitely superior in every respect that the surgical profession will gradually adopt this method as the only procedure which serves to guarantee a permanent cure to a patient suffering from gastric or duodenal ulcer. It is the writer's opinion further that in its broader sense duodenal ulcer is not a surgical disease and that in due time surgery will be reserved for the treatment of the complications, namely, obstruction, penetration and repeated hemorrhage." End of quote.

In reviewing the present trend in so far as these two main problems are concerned, I shall first consider the matter of indica-

tion for operation. A study of the cases operated upon at the Roosevelt Hospital reveals the following: During the period from 1917-1927 it was the exception that such cases received preliminary medical treatment, at least in the hospital. Customarily the diagnosis having been established by clinical findings and roentgenologic examinations, operation was performed rather promptly. The feeling prevailed at least among the surgeons, that peptic ulcer was essentially a surgical disease and that the surgical treatment accorded it was in the main satisfactory.

It is undoubtedly true that among medical men and gastro-enterologists, at least, this attitude was seriously questioned. As time elapsed it became increasingly evident that the claims for medical treatment in peptic ulcer supported by a growing mass of reported results, were not to be denied. It is of interest to observe that year by year the number of operations performed for these conditions has gradually diminished and this without significant diminution of the number of cases admitted. This change has been primarily due to the increasing recognition of the fact on the part of surgeons that careful medical management is capable of relieving or controlling a very considerable number of these cases. A recent report from the Mayo Clinic revealed the following: Analysis of patients in whom the diagnosis of duodenal ulcer was made during the year 1938 reveals the fact that only 15.7 per cent of these patients who had a diagnosis of duodenal ulcer underwent surgical treatment. It is, therefore, obvious that the medical management of duodenal ulcer gradually has been extended to include a larger number of patients.

From the Lahey Clinic comes the following report: Of the 3,670 patients with duodenal ulcers managed in bed in hospitals only 8.2 per cent were submitted to operation. Only those patients who had incapacitating symptoms were operated upon and these constitute the group of 8.2 per cent.

From the fourth surgical division of Bellevue comes the following: No patient with chronic duodenal ulcer is advised to have surgical intervention until all forms of medical treatment have been exhausted. Their records indicate that 11 per cent of their cases have been referred to surgery.

Thus one could continue indefinitely with recorded evidence from well regulated and well known groups indicating that the consensus of opinion today is that

duodenal ulcer is essentially a medical disease and that before operative procedures can be justifiably advised important consideration must be given to the presence or absence of complicating factors. In contradistinction to malignant disease rarely is surgical removal of an uncomplicated duodenal ulcer an urgent procedure. Any operation entails a certain amount of risk. This risk is diminishing each year but with all the advances in preoperative care the risk has not been entirely eliminated. To advise operation in a case in which sufficient indications are lacking and to experience a fatal outcome is most lamentable. It should not be forgotten, therefore, that in uncomplicated duodenal ulcer, the patient may be able to lead an active life with little discomfort, and in many instances without great inconvenience in his habits of living.

It is encouraging, therefore, to note that while the present situation regarding peptic ulcer still seems somewhat unsatisfactory, a perusal of the current literature definitely indicates that real progress has been made in its management. It is now generally admitted that almost no patients with ulcer are in need of immediate surgery. The patients in whom surgery must be considered are:

1. Those whose symptoms persist and are of disturbing intensity in spite of adequate medical management.
2. Those with pyloric obstruction which cannot be relieved by rest and neutralization of gastric acidity.
3. Those with perforation and penetration.
4. Those in whom repeated hemorrhage has taken place in spite of good medical treatment.

The change in attitude within the last few years regarding the type of operation is also of interest. Whereas ten years ago when surgery was indicated, gastro-jejunostomy was considered the operation of choice, investigation today indicates that among the same group of surgeons the figures on the incidence of conservative and radical operation have been completely reversed. With but few exceptions surgeons all over the country concede that gastro-enterostomy for non-obstructive duodenal ulcer is an operation which should be avoided.

Even those who but a few years ago were most ruthless in their criticism of the advocates of radical surgery are compelled to agree that the positive indications for gastro-enterostomy are present in an in-

creasingly limited group of cases.

The present tendency to postpone surgery until all the resources of medicine have been exhausted naturally brings to surgery cases suffering from scarred or sclerosing ulcers; ulcers penetrating the head of the pancreas, ulcers invading blood vessels, and ulcers which have caused duodenal or pyloric stenosis.

Many clinics in this country have returned to pyloroplastic methods. These might solve the problem if the ulcers were situated on the anterior wall of the duodenum. However, the majority of the ulcers are situated on the posterior wall. It is perfectly evident that pyloroplastic methods cannot be applied to these ulcers with any prospect of curing the patient.

A study of the pathologic findings in a large group of resected specimens disclosed the fact that 72 per cent had posterior ulcers while but 12 per cent had anterior ulcers only. Among the patients with posterior ulcers, definite chronic pancreatitis of varying severity existed in 73 per cent.

It is worth while emphasizing that the pathologic changes in posterior duodenal ulcer are not fully appreciated unless a subtotal resection is performed, with removal of the ulcer from the head of the pancreas. To determine whether a duodenal lesion is an anterior or posterior one is most difficult, since a single posterior ulcer can cause a deformity on the anterior portion of the duodenum, that will give the characteristic appearance of an anterior ulcer. There is another very important reason why pyloroplastic as well as gastro-enterostomies give unsatisfactory results. They do not change materially the acid values which existed prior to operation, thus the door is left wide open for recurrences. It is an undisputed fact that duodenal ulcers occur and recur in the presence of high acid values and that they are practically unknown in the presence of low acid values or an anacidity.

It appears logical that in selecting an operative procedure for the cure of duodenal ulcers one should select that method which most frequently ensures a post-operative achlorhydria or at least marked reduction of the acid figures. The only method which produces this effect in the vast majority of cases is partial gastrectomy with removal of the lesion.

Exaggerated statements have been made about the so-called inherent mortality and about the magnitude of the operative procedure in gastric resection. With some experience in gastric resection and with the

proper organization, the mortality in primary cases should not be higher than 5-7 per cent.

From the Mayo Clinic comes a comparative report of cases operated upon for benign lesions of stomach and duodenum in 1938 with the following figures; Mortality following gastro-enterostomy 2.6 per cent, that following partial gastrectomy 2.7 per cent. When those treated only for ulcer are separated from the group as a whole the following figures result: Following gastro-enterostomy, 1 per cent, partial gastrectomy 1.85 per cent. Accompanying these figures was the following statement, quote, "It should be emphasized that partial gastrectomy, although a more formidable operation than gastro-enterostomy, can be carried out for duodenal ulcer with a mortality that is quite comparable to that of gastro-enterostomy when carefully performed in well selected cases. This fact has significance in selecting the form of treatment as well as the type of operation when considering the patient who has duodenal ulcer." End of quote.

In conclusion the writer is far from content with the present status of ulcer therapy. He recognizes, as Ochsner enumerates them, "the precipitating factors which lend to ulcer formation or promote its recurrence, namely, hypersecretion, hyperacidity, focal infections, reflex pyloroplasm, and gastric trauma. The search for the true etiology of peptic ulcer must continue to be pursued vigorously." Future success in the treatment of peptic ulcer lies in the direction of its prevention or early control, through a better understanding of its causes and nature, rather than in that of more brilliant, daring and technically improved surgical attack. The realm of allergy and the role of histamine must be more thoroughly explored for herein may readily be hidden the key to the mystery which remains to harass us.

The ideal method for definite and permanent cure still has to be found. At present the writer feels that when a series of medical treatments have failed, partial gastrectomy affords the best therapeutic method at one's disposal. It relieves the patients of many years of suffering; safeguards them against the serious complications of perforation or hemorrhage, and effects a permanent cure in about 90 per cent of the cases.

DISCUSSION

Irvin Abell: I have listened with a great deal of interest to Dr. Frehling's exposition of the present day concept of the surgical treatment

of peptic ulcer. The medical profession has been rather slow to accept the hypothesis advanced by Dr. Finsterer in 1920 that where there is no acid there will be no ulcer. The first to accept and advocate this idea in this country was Dr. Berg of the Mt. Sinai Hospital in New York. In 1928, at which time Dr. Frehling was its resident, I visited the Mt. Sinai Hospital to see the work of Dr. Berg. I was not convinced of the wisdom of doing massive resections and, coming home, continued to apply the conservative procedures at that time widely employed in this country. Surgical treatment in the groups mentioned by the essayist has three objectives, the removal of the ulcer and the ulcer bearing area, the restoration of physiological function and the prevention of recurrence. Whatever the cause of ulcer, abundant clinical observation has shown it to be closely related to the presence of acid, consequently the prevention of recurrence depends largely upon the production of anacidity or at least of a hypoacidity. The conservative operations fail to bring about this result, especially in younger patients presenting a preoperative high acidity. Resection of thirty per cent of the stomach, while carrying a higher mortality than the conservative operations, fails to give better results because it fails to reduce sufficiently the acid values. The radical operation today contemplates the removal of three fourths to four-fifths of the stomach including the pylorus. Following this procedure seventy per cent show anacidity and no recurrence of ulcer and thirty per cent still show acid values with a low percentage of recurrences. In the latter group the explanation for recurrence lies in the persistence of acid or else in a predisposition to ulcer formation which observation confirms Dr. Frehling's statement that the cause of ulcer remains obscure. I, like Dr. Frehling, have written upon the subject of the surgical treatment of ulcer, having published three papers and am at present preparing the fourth, covering an experience of thirty years. It is interesting to note the change in practice dictated by experience and the increasing trend in the employment of radical rather than conservative methods in dealing with the group of ulcers under discussion. The conservative operations carry a lower mortality than the radical: however, if to the mortality of the conservative operations there is added that of operations for recurrence in those cases in which conservative operations were primarily employed, the mortality will approximate that of primary radical resection. So far this year five of our cases, all operated on more than ten years ago, have returned to us because of serious, repeated hemorrhage. Three of these had cautery destruction of the ulcers with gastro-jejunostomy and two had resections of ap-

proximately thirty per cent of the stomach by the Billroth-Polya technique, operations which increasing experience has shown to be inadequate in preventing recurrence because of the failure to reduce sufficiently the acid values. The mere presence of ulcer is by no means an indication for operation. Until its cause is determined permitting of a rational treatment ulcer must still be regarded as a medical problem reserving the application of surgery for the complicated cases discussed by Dr. Frehling in his paper. For the treatment of these the trend is definitely toward the radical operation since it gives the greatest comfort, the greatest number of cures and the greatest protection against recurrence.

Irvin Abell, Jr: In the surgical treatment of chronic duodenal ulcer there are patients who because of age, debility, constitutional disturbances, other organic diseases, technical difficulties, and similar hazards, must be treated by conservative operative procedures. In addition to these, to be handled by gastro-enterostomy is that group of individuals over forty-five years of age who have a structural closure of the pylorus due to cicatricial formation. A low gastric acidity in such an instance exerts a direct influence on the beneficial results.

A high gastric resection which removes at least three-quarters of the organ must be done in other cases to obtain satisfactory results. This satisfactory result is explained by the following facts. The operation removes a large part of that gastro secretory mucosa where ulcers occur and where acid is produced. The emptying time of the stomach is decreased and the alkaline jejunal contents are given an earlier opportunity to neutralize such free acids as may be produced by the remaining gastric mucosa. These factors greatly decrease the possibility of subsequent ulcer formation in the stomach.

The indications for this procedure have already been discussed: ulcers intractable to a well supervised medical regime, ulcers perforating into the pancreas, these in which there have been recurrent hemorrhages, and finally in certain chosen instances those where there is obstruction at the pylorus.

The subtotal gastric resection can today under proper circumstances be performed with a mortality approximately five to six per cent. The advisability of gastric resection in the treatment of chronic duodenal ulcer is best represented by the following statement: conservative procedures rather than subtotal resection are to be employed only in carefully selected cases.

Joseph L. Goldstein: One other point regarding the etiology is the psychogenic factor at least as an aggravating factor. At a discus-

sion on peptic ulcer at St. Louis about one year ago, Dr. Chester Jones of Boston and others emphasized this point—in other words, the importance of knowing something about the patient, his problem, background, environment as well as his stomach. Work upon the problem in this way in some cases, at least, may be of some help.

ANEMIA AS A PROBLEM FOR THE DERMATOLOGIST

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There are several types of anemia which are of interest to the dermatologist. The most important of these are aplastic anemia, anemia associated with purpura and anemia accompanying leukemia. The anemias accompanying the purpuric states have been reviewed in a previous paper of this series. The anemia due to leukemia may be dismissed with the following brief statements:

Anemia invariably accompanies leukemia, unless the patient dies of intercurrent disease before the leukemia has had a chance to run its course. The anemia is not peculiar but is usually characterized by the presence of normoblasts in the peripheral blood. Normoblasts may be quite plentiful in chronic leukemia. Platelets usually are decreased in number and severe bleeding may result. Occasionally leukemia is discovered more or less accidentally because the accompanying anemia or purpura is of such severity as to cause the patient to consult a physician. Not infrequently leukemia causes skin lesions. These may be papular in character and often are accompanied by severe itching. The patient may therefore consult a dermatologist because of the skin eruption. Leukemia is not necessarily associated with a high leucocyte count, so-called aleukemic leukemia, but anemia is invariably present. This anemia does not respond to chemotherapy and transfusions are of temporary benefit only.

APLASTIC ANEMIA

Aplastic anemia is a severe anemia associated with a reduction of definitive cells in the peripheral blood stream. Two forms are usually recognized, an idiopathic type of unknown cause and a so-called secondary type due to known agents. From the point of view of mechanism we can also recognize two forms of the disease. One is an a-regenerative type (anhemopoietic)

in which the reservoir cells are depleted and precursor marrow cells gradually disappear; the other is a maturation (dys-hemopoietic) type in which the cells, though abundantly present, fail to undergo normal development.

PATHOGENESIS: From the point of view of pathogenesis, it is important to distinguish between this conception of mechanism and of cause. The difference between the anhemopoietic (a-regenerative) and the dyshemopoietic (maturation) types of the disease can be appreciated only by reference to the status of the bone marrow. In the former, the bone marrow is truly aplastic or hypoplastic, showing actual cell depletion, while in the latter the marrow may appear hyperplastic. The distinction is important also from the clinical point of view. The statement is sometimes made that a diagnosis of aplastic anemia cannot be entertained if the peripheral blood contains reticulocytes or normoblasts, since these presumably indicate a regenerative condition of the hematopoietic tissue. It is obvious, however, that in the maturation deficiency form, in which the marrow may contain an abundance of young cells, a few of these cells are likely to appear in the peripheral blood stream. Their presence does not necessarily rule out aplastic anemia nor does it necessarily indicate a favorable prognosis. The conception of an a-regenerative and a maturation form of aplastic anemia also enables us to appreciate the genetic relationship between aplastic anemia, granulocytopenia and thrombocytopenia. Each of these three entities may be due to inhibition of formation or inhibition of maturation of precursor cells. If the inhibition affects the reticulo-endothelial reserve cells or all three types of precursor cells, aplastic anemia develops; if the inhibition affects only myelopoiesis, granulocytopenia results; if the inhibition affects only thrombopoiesis, thrombocytopenia supervenes. The distinction will become still more important at some future date when we learn what are the factors responsible for normal marrow cell development. A simple illustration will make this clear. So long as we were ignorant of the mechanisms responsible for pernicious anemia, we employed a great number of therapeutic agents empirically, all without avail. Now, with the discovery of normal mechanisms for erythropoiesis, we can supply the correct maturation stimulus and control the pernicious anemia permanently. Unfortunately, it is not possible, at present, to distinguish between the two essential forms of aplastic

anemia, even by examining the bone marrow. The reason for this is that even in the hypoplastic form, in which cell division is at fault, all the marrow does not necessarily share in the hypoplasia. The particular marrow specimen available for histologic examination may be comparatively cellular. Secondly, when the marrow is truly hypoplastic, the diagnosis cannot be made with certainty unless a portion is removed with a curette. This entails an operation and a patient suffering from aplastic anemia is in no condition to undergo an operation. A needle puncture biopsy of the sternal marrow is apt to be inconclusive because the marrow cells are not easily dislodged by simple aspiration; the condition is associated with a tendency to hemorrhage which causes the aspirating syringe to be filled with erythrocytes; if the marrow is replaced by sclerotic or fatty tissue, no marrow cells will appear in the aspirating syringe.

ETIOLOGY: The idiopathic form of aplastic anemia is, of course, of undetermined cause. This type, fortunately, is rare. The so-called secondary form results from known physical or chemical agents, severe infection, neoplastic involvement of the bone marrow and possibly bone marrow "exhaustion." The physical agents capable of causing aplastic anemia are X-rays, radium and radio-active substances, especially mesothorium. Among diseases which may cause this type of anemia are leukemia, carcinomatosis of bone, bone marrow tumors and severe infections. From the clinical point of view, chemical intoxication is probably the most common cause of aplastic anemia. Among these are benzol, phenylhydrazine, arsenic, lead, saponin, collargol, bichloride of mercury, lye and salvarsan. The dermatologist, perhaps more than any other medical specialist, employs a great variety of chemotherapeutic agents. Fortunately only the very occasional individual is susceptible. But it is well to have in mind that, experimentally, certain agents show an elective action on myelopoietic tissue first and later affect erythropoiesis and thrombopoiesis if the agent is employed over a sufficiently long period of time. Drugs which cause leucopenia may later produce granulocytopenia and if continued, aplastic anemia. It should be borne in mind also that the blood dyscrasia may develop immediately in some instances, after a long latent period in others. Many therapeutic agents in common use contain one or more benzene rings. These are at least potential sources of danger. This danger can probably be averted entirely by periodical examination

of the blood of patients undergoing chemotherapy.

HEMATOLOGY: The most important blood changes are: a severe (and usually steady) decrease in all the formed elements, erythrocytes, leucocytes and platelets. The erythrocytes are usually normal in their appearance. The leucopenia affects especially the granulocytes. The platelet decrease is associated with a positive capillary test, petechial or purpuric hemorrhages, prolonged bleeding time, poor clot retraction. Leucopenia is apt to be associated with ulceration of the mucous membranes and severe infection. Usually, if a sufficient number of blood smears are searched carefully, an occasional normoblast or reticulocyte will be found.

PROGNOSIS: The prognosis is almost invariably bad in the idiopathic form of the disease, which affects young adults more often than old people, women slightly more frequently than men. In the secondary form the prognosis is somewhat more favorable, although far from good. The speed of development of the condition and the causative agents are factors to be taken in consideration when the prognosis is being estimated. If the aplastic anemia is due to radio-active substances or X-rays, the ultimate outlook is invariably very serious.

TREATMENT: Few diseases are more hopeless than aplastic anemia from the point of view of therapy. An essential first step is to withdraw all drugs, on the chance that the patient may be taking some harmful chemical agent. Nucleoproteins are of no value and yellow marrow extract also is useless. Only two therapeutic agents hold out any prospect of success. One of these is adrenalin. This causes an increase in the number of erythrocytes and leucocytes in the peripheral blood stream. Gibson kept a child in fair health for six years by the daily injection of five minims of 1/1,000 solution of adrenalin hydrochloride. Adrenalin also constitutes the basis of a useful test of bone marrow function. The test is carried out as follows: Five to ten minims of 1/1,000 solution of adrenalin hydrochloride is injected subcutaneously and total and differential leucocyte counts are made every ten minutes for a period of one hour following the injection. Normally there is an immediate increase in the number of leucocytes, due to splenic contraction. This is followed by the appearance of many young polymorphs in the peripheral circulation, due to marrow stimulation. If the marrow is aplastic no young leucocytes will be found in the blood smears.

The most important and valuable therapeutic stand-by is blood transfusion. By

preparing the donor, it is possible to improve the blood before transfusion. The donor should undergo preliminary phlebotomy at short intervals, about two or three ounces of blood being withdrawn every three days for a period of nine to twelve days, in order to stimulate regenerative erythro- and myelo-poiesis. Then, when the donor's blood shows a reticulocyte response, it is ready for use in transfusion. The rationale of the procedure is based upon the assumption that the donor's blood at this time is rich in hemopoietic substances and therefore more likely to stimulate the recipient's bone marrow. This procedure is feasible only in cases where relatives (who will consent to submit to the "training" process) are available as donors and where several donors are available. Some of these could then be prepared in the manner indicated, while others contribute blood to tide the patient over the emergency. This method of transfusion is especially promising in the dyshemopoietic form of aplastic anemia where the maturation factor for hematopoiesis is presumed to be lacking.

SUMMARY

The dermatologist sometimes has to deal with anemic patients.

The anemias of particular interest to the dermatologist are aplastic anemia and anemia associated with purpura and with leukemia.

Aplastic anemia is discussed with special reference to pathogenesis and therapy.

Aplastic anemia may be anhemopoietic (a-regenerative) and dyshemopoietic (maturation arrest) in origin, idiopathic and "secondary" in cause.

A method is outlined for improving a donor's blood before it is used for transfusion.

From the point of view of the clinical management of the individual case of tuberculosis and from the broader aspect of public health control of the disease, no one test occupies a position of greater importance and significance than that of the sputum examination. The persistence of a positive sputum is regarded as clear evidence that pathological activity of the disease has continued. An improved technic of sputum examination for acid-fast bacilli using tergitol has been reported. The use of this is said to approximate the results obtained by the use of guinea-pig inoculation, which is impractical except in selected cases because of cost.

BOOK REVIEWS

DISEASES OF THE NOSE, THROAT AND EAR.—By W. Wallace Morrison, M. D., Clinical Professor and Chief of Clinic, Department of Otolaryngology, New York Polyclinic Medical School and Hospital. 675 pages with 334 illustrations W. B. Saunders, Philadelphia, Publishers, \$5.50 net.

This new book is the clinical record of the author's long experience as a teacher and specialist and is based on a comprehensive study of the field and its requirements.

The author first considers the diseases of the external nose and nasal cavities, and then goes on to discuss the allergic diseases of the respiratory tract. There are especially extensive discussions of the paranasal sinuses and diseases of the pharynx.

There are 96 pages on the larynx, with a mirror picture of every diseased condition discussed. Diseases of the trachea, bronchi and esophagus, including peroral endoscopy are extensively covered, while 140 pages are devoted to a detailed discussion of diseases of the ear.

The use of drugs, solutions, and other medical treatments as well as giving specific surgical technic. The author has included, among other valuable features, a Formulary of Prescriptions, practical and quick-reference Symptom-Index and 629 unusual fine illustrations on 334 figures that he himself drew especially for this book.

A TEXTBOOK OF HEMATOLOGY.—By William Magner, M. D., D. P. H., Pathologist, Saint Michael Hospital, Toronto, Canada, Lecturer in Pathology, University of Toronto. Formerly Lecturer in Pathology, University College, Cork, Ireland. P. Blakiston's Son and Company, Philadelphia, Publishers.

The subject of Hematology has become of increasing importance and a book written in such a manner that general practitioners can appreciate, is always of value. As there are no short cuts to this subject the laboratory methods are given clearly but concisely with many colored plates of normal as well as abnormal cells, and sufficient interpretations of various abnormal manifestations on the blood picture.

GRADUATE MEDICAL EDUCATION, A REPORT OF THE COMMISSION ON GRADUATE MEDICAL EDUCATION (University of Chicago Press.)

The organization was financed by the Rockefeller Foundation, the Carnegie Corporation, the Joseph Macy Jr., Foundation and smaller organizations, interested in this problem. It has studied the needs of graduate and post graduate medical training and its ultimate objective is to stimulate greater interest in this whole field.

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NEXT MEETING LOUISVILLE

EDITORIALS

THE LEXINGTON MEETING

It is with real pride and pleasure that we record the passing of another of those milestones in the history of the medical profession of Kentucky which are marked by the successive annual meetings of the Kentucky State Medical Association. In a program of such uniform excellence, it would seem invidious to select any particular portion for special mention, however, in this issue, we take a great deal of pride in publishing the address of the President, Austin Bell, and the orations in medicine by O. O. Miller and in surgery by Allen E. Grimes. Careful reading of these confirms our feeling after hearing them delivered that they were given with the voice of authority and we commend their careful perusal and thoughtful consideration to every reader of the Journal whether present in Lexington or not.

The essays in the scientific program might well have been delivered before any one of the great special societies interested in the particular subject considered, and although the discussions were too brief, they were pointed and valuable.

The scientific exhibits under the Chairmanship of Virgil E. Simpson were of such uniform excellence and so ably demonstrated by those in charge of them that we heard many of our members say they could have spent a week in the study of them at their several booths and count it time well spent.

The commercial exhibits were as valuable in their particular way. Various new types of equipment and procedures were displayed with skill and interest reflecting credit to their advertisers, in every issue of the Journal.

The panel discussions on surgery under the chairmanship of R. T. Hudson, and on the blood under the chairmanship of John W. Scott were well attended and provoked a great deal of interest and we hope this will be a permanent part of our programs.

The proceedings of the House of Delegates were fraught with unusual interest. The Secretary was able to report the largest membership in the past thirty years. More counties reported in the House of Delegates at this session than ever before; the registered attendance was the largest of any of the meetings outside of Louisville. The intelligent interest in the problems of medicine in Kentucky resulted in a series

of reports that will appear in subsequent issues of the Journal. The very careful, studied report of E. B. Bradley, Chairman of the Committee on the Revision of the Constitution and By-Laws contains certain suggestions for changes in the basic plan of organization which did not receive the approval of the House but the portion of Dr. Bradley's report which was of the greatest value was certain suggestions for textual changes which are necessary and which may be considered and passed at the Louisville session of the House of Delegates next year. Dr. Bradley's tactful and logical presentation of his report was appreciated by everyone who heard it.

The election of officers resulted as follows: E. L. Henderson, President; W. E. Gary, Hopkinsville; E. Lee Heflin, Louisville and W. R. Parks, Harlan, Vice Presidents. D. M. Griffith and J. I. Greenwell were re-elected Councilors for the Second and Fourth Districts respectively. The following delegates to the American Medical Association were re-elected: J. Duffy Hancock and A. T. McCormack. C. A. Vance was re-elected Chairman of the Council. For next year's meeting, Guy Aud will give the oration in surgery and Thornton W. Scott will give the oration in medicine.

The elevation of Dr. E. L. Henderson to the presidency was a merited reward for many years of service to the medical organization. Few men have given more time, energy and loyalty to the medical profession. We look forward to his administration with the confidence that the high standards of Kentucky medicine will be maintained.

The entire session, both scientific and official was characterized by a unanimity that shows the essential uniformity of the medical profession in its desire to give medical and public health care to the people of Kentucky. It is indeed fortunate that we have in the profession members sufficiently interested to be critical, and by their criticism, to keep those charged with responsibility from straying from the "straight and narrow path" of the high ideals of the profession. The natural clashes of opinions and personalities which always occur in any gathering of Kentuckians demonstrated the prevailing good humor which caused everybody to return home happy, satisfied and united.

THE SOUTHERN MEDICAL ASSOCIATION

The Southern Medical Association will hold its Thirty-fourth annual meeting in Louisville, November 12 to 15th inclusive. Probably no other medical association is more alert to the needs of the general practitioner than this splendid organization. Some of the best known leaders in the profession throughout the country will be on the program, and all the doctors in Kentucky are invited to attend. If you are not a member, why not send immediately your dues of \$4.00 to the Secretary, Birmingham, Alabama, and enjoy the scientific papers and news items that are published monthly in the Journal of the Association.

The Jefferson County Medical Society has been actively at work for many months in efforts to make this one of the best meetings of the Association. Kentucky has the honor of furnishing the President this year, Dr. A. T. McCormack; Dr. E. L. Henderson is a Councilor. The interest that Kentucky has always had in this Association is evidenced by the number of Kentuckians on the important committees. The officers of the Jefferson County Medical Society have organized themselves into a committee for the guidance of the Association at this meeting. Every physician in the county has been given an active part, through committee membership, in insuring the success of this convention. Dr. E. L. Henderson is general chairman of the Committee of Arrangements.

GOLF AT THE LEXINGTON MEETING

The Lexington Country Club was the scene of great activity during the meeting with out-of-town doctors endeavoring to capture the many beautiful as well as useful prizes secured by the Chairman, Dr. Harry Herring, Lexington.

The following were the successful competitors: First prize, a handsome large leather golf bag, Dr. Harry Herring, Lexington. A special designed putter, W. T. Maxson, Lexington. An imported golf jacket of finest wool, C. C. Garr, Lexington. A brilliant colored large golf umbrella, W. T. Briggs, Lexington.

C. W. Dowden, Jr., Louisville, received a golf umbrella for the most birdies; G. E.

Lowrey, Harrodsburg, small head covers for golf clubs.

Each of the low foresomes received three golf balls, Drs. Buckner, Buttermore, Coleman, and Richeson.

Mrs. Fred W. Rankin, Lexington, received the first prize, a handsome golf bag, and Mrs. Scott, of Lexington, an umbrella.

THE AMERICAN PUBLIC HEALTH ASSOCIATION

The American Public Health Association will meet in Detroit, October 8-11th inclusive, and all physicians in Kentucky are invited to attend. While most of the papers will be devoted to problems dealing with public health, many Refresher Courses will be given which will be of particular interest to the general practitioner. The many and varied Scientific Exhibits will be educational in themselves.

This meeting offers an ideal vacation for physicians to go and take their families. Many interesting entertainments have been arranged for the ladies as well as for the members and their guests.

It is recalled that Kentucky is particularly interested in this Association, because our Secretary-Editor, Dr. A. T. McCormack is Past-President.

THE NEW A. M. A. DIRECTORY

After twelve months' preparation, the new Sixteenth Edition of the American Medical Directory is ready. The 1940 Edition contains 195,104 names of physicians or 6,188 more than the previous edition in 1933. Because of death 7,586 names were dropped from the book and 13,798 physicians, new graduates and physicians coming from foreign countries have been added.

Locating a physician in the directory is easy. In the main section, physicians are grouped by cities, in strict alphabetical order for each state. Each individual is biographically described, the year of his birth, his school and year of graduation; his state license; if he is a diplomat of the National Board of Medical Examiners, that also is included; his home and office addresses and office hours; his specialty; his affiliation with a special society; his Military title or Medical School Professorship. Even though you do not have the location of the physician he can be readily located in the complete alphabetical index in the back of the book. All physicians are listed by name in alphabetical order followed by the city in which he is located.

The front section of the book contains data regarding the American Medical Association, government officers, medical schools, libraries and a list of members of special societies. The second section is arranged by states. Published under each state are the Medical Practice Act, members of boards of medical examiners, state boards of health, county and city health officers, and the officers of state and county medical societies. Following this information is a list of 7,257 hospitals and sanatoriums, with data regarding bed capacity, type of patients treated and the name of the superintendent.

VENEREAL DISEASE INFORMATION

A valuable publication entitled "Venereal Disease Information" presents a monthly digest of the important papers on diagnosis, treatment, pathology, laboratory research, and public health from the entire world. In addition, it publishes important special papers and reports by leading scientists. It is designed to keep both the specialist and the general practitioner informed of developments in the field of syphilology and urology.

This medical journal of venereal disease has been highly recommended by leaders in all fields on public health. In a rapidly developing and changing field of medicine, the physician interested in venereal disease control from the standpoint of differential diagnosis and treatment will find V. D. I. an important aid.

It is published monthly by the U. S. Public Health Service. Today it ranks as the Government's "best seller," with the highest paid circulation of any Federal publication. It is available at 50c per year to all physicians.

All orders should be directed to the Superintendent of Documents, Government Printing Office, Washington, D. C. Subscription fee, 50c per year, in check or money order, not stamps.

SOCIETY OF BACTERIOLOGISTS

The physicians and their assistants are cordially invited to attend the meeting of the Kentucky Branch of the American Bacteriologists which will be held in Lexington, October 25th. The program will include those subjects of interest to bacteriologists, a synopsis of which will be published in their official journal. Any further information can be solicited from Mr. R. H. Weaver, Chairman, Program Committee, Department of Bacteriology, University of Kentucky, Lexington.

NEWS ITEMS

SURGICAL INSTRUMENTS NEEDED

There is a shortage of surgical instruments in Great Britain, and the members of the Jefferson County Medical Society have been requested to collect all instruments from the physicians that they do not need regardless of their age, so please send whatever you have to Dr. E. Lee Heflin, President, Louisville.

The American Academy of Ophthalmology and Otolaryngology will hold its forty-fifth annual convention in Cleveland, October 6 to 11, with headquarters at the Hotel Cleveland.

The Academy, an organization of more than 2,500 specialists in diseases of the eye, ear, nose and throat, carries on an active program of education for its members. In addition to scientific papers, an elaborate series of courses is presented at each convention to bring the members up to date in their chosen fields. More than 100 of these teaching lectures will be offered this year.

The Twenty-Fifth Annual Session of the American College of Physicians will be held in Boston, with general headquarters at the Statler Hotel, April 21-25, 1941.

Dr. James D. Bruce, of Ann Arbor, Mich., is President of the College and will have charge of the program of general scientific sessions. Dr. William B. Breed of Boston has been appointed General Chairman of the Session and will be in charge of the program of clinics and demonstrations in the hospitals and medical schools and of the program of panel and round table discussions to be conducted at the headquarters.

The American Board of Ophthalmologists will have one written examination during 1941. This will be held in various cities throughout the country on March 8th.

Candidates enrolled in the preparatory Group who have been advised that they will be eligible for examination during 1941 should make application at once to take this written examination.

Application must be made on the regular blanks provided for the purpose and must be received in the Board Office before December 1st, 1940.

A special oral and clinical examination will be held on the Pacific Coast during 1941 providing there will be enough candidates to warrant it. Applications for this examination should be filed as soon as possible, so that the Board may complete necessary arrangements.

For further information please write to American Board of Ophthalmology, 6830 Waterman Avenue, St. Louis, Missouri.

Dr. W. C. Simmons, age 72, Smiths Grove, Kentucky, died Friday, August 23rd. He has been a practicing physician in that community for over 50 years.

COUNTY SOCIETY REPORTS

Four-County: The Four-County Medical Society, composed of physicians residing in Caldwell, Crittenden, Lyon and Trigg counties, met in quarterly meeting on Tuesday afternoon, August 27, 1940, at Kuttawa Springs, Lyon county, with the president, D. J. Travis, Eddyville, presiding. Minutes of the previous meeting, held at Marion, Crittenden county, were read by the secretary, W. L. Cash, who, also, read several communications, relating to the approaching meeting of the State Medical Association at Lexington and the medical preparedness program of the American Medical Association, urging that returns be made on the questionnaires, sent to all physicians in an effort to acquire information necessary in having the medical profession prepared for any emergency in connection with the existing European war. A. T. McCormack, Secretary of the State Medical Association, was a guest at the meeting, and spoke in reference to the forth-coming meeting of the State Association, and gave some first-hand information regarding the program of the American Medical Association in preparing the medical profession for any emergency in connection with the European war, and urged that all questionnaires be properly filled and mailed to the proper address. L. H. South, State Bacteriologist, was a guest at the meeting also, and spoke relative to her work in the Bureau of Bacteriology, Department of Health, giving some helpful suggestions in an effort to render more efficient service to the medical profession of the State.

A barbecue supper was served following the rendition of the scientific program. Austin Bell, President-Elect of the State Medical Association, of Hopkinsville, was on the program, but was unable to be present, and his place on the program was filled by W. E. Gary, of Hopkinsville, who read a paper on "Irradiation in Uterine Conditions." Gant Gaither, of Hopkinsville, discussed the topic, "The Diagnostic Importance of Abdominal Pain." There was a general discussion of these subjects, and valuable points were elicited.

The following physicians attended the meeting: A. T. McCormack, L. H. South, Louisville; Gant Gather, F. T. Harned, W. E. Gary, F. H. Bassett, J. W. Harned, Hopkinsville; T. Atchison Frazer, Marion; W. F. Stucky, Dawson Springs; John Futrell, W. G. Morgan, Elias Futrell, Cadiz; J. G. White, G. E. Hatcher, Cerulean; T. L. Phillips, Kuttawa; H. H. Woodson, C. P. Moseley, D. J. Travis, Eddyville; C. D. Robertson, surgical supply salesman, Nashville; W. C. Haydon, J. M. Dishman, F. T. Linton, K. L. Barnes, W. L. Cash, Princeton.

The society adjourned to meet again on the fourth Tuesday night in November at Cadiz, Trigg county, the program to be prepared by the member of the program committee, residing in Cadiz, Dr. Futrell.

W. L. CASH, Secretary

KENTUCKY MEDICAL JOURNAL

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PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American System of democracy.

EDITORIALS

SOUTHERN MEDICAL

The Southern Medical Association will hold its sessions in Louisville on Tuesday, Wednesday, Thursday and Friday, the 12th through the 15th, of November. We have just received the preliminary program.

Those of us who have attended the annual sessions of this great scientific organization will not be surprised at the remarkable breadth of this program, copies of which are being sent to each member of the Association. We hope very much that you will look it over, because we know it will make you want to come to Louisville for these four days. There is no problem confronting the medical profession from the scientific standpoint which will not be considered in one of its sections, or one of the auxiliary meetings which will be held the same time. The general clinical session which will be held on Tuesday and Wednesday where the members of the Louisville profession will present a series of remarkable clinics will be conducted along lines familiar to those present at the St. Louis and Memphis Sessions.

On Wednesday morning, a general clinical session will be held in the Armory, and in this day of Medical Preparedness, every member of the profession, as well as every citizen of the country, will be interested in hearing such subjects as "An American Health Program" by Dr. Nathan B. Van Etten, President of the American Medical Association; "Building Health Defenses" by Dr. Thomas Parran, Surgeon General, U. S. Public Health Service; "The Naval Medical Officers Public Health Activity with Special Reference to National Defense" by Commander Charles S. Stephenson, Medical Corps, U. S. Navy, in charge of the Division of Preventive Medicine, Bureau of Medicine and Surgery, Washington, D. C. and "Immunization Against Infectious Diseases in the U. S. Army" by Lt. Col. James S. Simmons, Medical Corps, U. S. Army. Other contributors on this program will be Dr. Spies of Birmingham, Alabama and Dr. Kooser of Hyden, Kentucky on Pellagra, Dr. Horton Casparis on "Is the Behavior of Children a Medical Responsibility?" and Charles Stanley White on "The Use of Blood Plasma in Surgical Shock."

Arrangements for the meetings are especially complete. The scientific exhibits alone are worthy of a visit to this session. Following the lead of our own State Med-

ical Association, the Southern is inaugurating a hobby exhibit at this session, and there will be an interesting lot of contributions here.

The program for the entertainment of the Auxiliary and other visiting women is particularly interesting. The Jefferson County Medical Society and the Kentucky State Medical Association are joint hosts of the Southern this year, and we hope very much that we will have the largest attendance from Kentucky that we have ever had.

MEDICAL PREPAREDNESS

We are sure every physician in Kentucky has been made aware of the American Medical Association program for Medical Preparedness. With the approval of the Administration at Washington, a coordinating committee on medicine and public health activities has been set up of which our own Dr. Abell is the Chairman. A serious attempt is being made to secure a careful report from each physician in the United States telling just what he is best qualified and willing to do in the event of a national emergency involving the defense of our country. It is gratifying to know that Kentucky physicians have responded to the questionnaire better than those of any other state. This might be expected from a state that has also furnished more voluntary enlistments than any other state in proportion to population.

Medical Examiners for the 165 Draft Boards in the State have been nominated to the President by Governor Johnson, and they have received notice of their appointment. The profession will be gratified to know that Governor Johnson asked the approval of the Committee on Medical Preparedness of this Association for these selections. In addition to the local examiners, medical advisory boards have also been appointed for the twelve districts set up in the State. The members of these boards will act as consultants for the local examiners. Governor Johnson asked the Committee on Medical Preparedness to select these consultants.

Thus, our Governor has placed a responsibility for the physical examination under the Selective Service system on the shoulders of our profession. We are happy to assume this additional burden. It is our duty to exhaust our resources in securing for the Army men who are physically fit to be soldiers. We must not permit a repetition of the World War experiences where thou-

sands of cases of incipient tuberculosis, of neuro-psychiatric defects and persons suffering from syphilis and other chronic diseases were passed in the Army only to become costly wards of the government. It will be remembered by every physician that the induction centers re-examine every applicant, and it is our determination that we will have fewer of the men passed by our physicians rejected than in any other state. This business of preparation for war is a grim thing—it requires great courage, determination and sense. It is animated by patriotism. It will continue to be the purpose of the medical profession of Kentucky to do such a good job that no other state can excel it.

SCIENTIFIC EXHIBITS AT LEXINGTON

One of the most interesting features of the Lexington meeting were the Scientific Exhibits which occupied the entire Rookwood Room at the Phoenix Hotel. One doctor remarked that he could spend a week and still have something to learn.

The exhibits were so varied and excellent in character, that the Committee on Awards had great difficulty in arriving at decisions. This committee was composed of Dr. George Gregory, and Dr. J. M. Blades, with Dr. Thornton Scott, as Chairman.

In the Medical Group, first prize went to Dr. A. B. Loveman and Associates, Louisville, on Color Photography; second prize, to Dr. W. B. Atkinson, Campbellsville, on Home-made Appliances, and third prize, to Dr. Austin Bloch and his Co-workers, Louisville, on Cardiac Diagnosis.

In the Public Health Group, first prize was given to the U. S. Public Health Service Hospital (Narcotic Farm), Lexington, second prize to the Eastern State Hospital, Lexington, and third prize to the Laboratory of the State Department of Health, Louisville.

THE 1941 MEETING

The next annual meeting of the Kentucky State Medical Association will be held in the fall of 1941 at the Brown Hotel, Louisville. The President-Elect, E. L. Henderson, has already begun preparations to insure a busy, instructive meeting.

Many problems referring to mobilization are being carefully studied as well as the problems that the busy practitioner must face during the world's crises. The President-Elect would like to have suggestions for the program, as well as other

activities. The importance in national affairs of this Association is readily realized, when the physician reads the proceedings of the House of Delegates in this issue.

ARE YOU GUILTY?

Recording of Vital Statistics became a law in 1911 and then the responsibility of registering births and deaths was placed entirely upon the medical profession. This law was passed at the demand of the citizens of Kentucky because they realized the value. The registration of births is essential not only for proving citizenship, but also for proving parentage, for inheritance of property, for settlement of life insurance, for legal dependency, for establishing indentity, for tracing ancestry, for right to vote, for right to marry, for right to enter Civil Service, for entering military service, for social security benefits, for settlement of pensions, for passports and for immigration and emigration, for no person can enter or leave Canada, Mexico or any of our South American sister states, without a birth certificate.

Since the National Defense Program has been in effect, the Bureau of Vital Statistics has issued between 4,000 and 5,000 birth certificates each month, and these requests are growing. There are daily tragedies arising from the negligence of decades ago because of the inability of securing jobs in national defense industries because some doctor failed to record a birth certificate. This should make physicians more than ever realize now their duty to the future citizens of Kentucky, to make out complete birth certificates and file them promptly. Scarcely a day passes which does not find some man or woman pleading for a certified copy of a birth certificate which cannot be issued. His or her birth has not been registered and the legal proof of the facts necessary for such registration cannot be obtained now, when most needed.

Every child is entitled to be able, when he or she reaches adulthood, to produce, if need be, all the pertinent facts relating to the place and date of his or her birth and to his or her parentage. The law has provided a means by which these facts may be recorded and made easily available, in the years to come. The parent who fails or neglects to see that his child's birth is promptly and properly recorded, as provided by law, has failed in an essential duty of parenthood as well as of citizenship.

MINUTES OF THE NINETIETH ANNUAL SCIENTIFIC SESSION OF THE KENTUCKY STATE MEDICAL ASSOCIATION HELD AT LEXINGTON

SEPTEMBER 16-19, 1940

SCIENTIFIC SESSION

TUESDAY MORNING, SEPTEMBER 17

The opening session of the Ninetieth Annual Meeting of the Kentucky State Medical Association, designated as the William C. Sneed Memorial Meeting, and held in the Phoenix Hotel, Lexington, September 16-19, 1940, was called to order at 9:00 o'clock a. m., John W. Scott, Lexington, President of the Association, presiding.

PRESIDENT SCOTT: This, the Ninetieth Session of the Kentucky State Medical Association, in honor of Dr. William C. Sneed, will now be in order. We will have the invocation by Reverend A. W. Fortune, Lexington, Pastor, Central Christian Church.

REVEREND A. W. FORTUNE: Our Father, we recognize Thee as the One upon whom we are dependent. Sometimes we feel sufficient in ourselves and then we face experiences which make us realize our helplessness. When weak, O God, we come to Thee for strength. We know so imperfectly the things we ought to know, we came to Thee for wisdom and guidance.

We thank Thee for our country, for the liberty it brings to us. We thank Thee that we can meet as we are meeting this morning, without any thought of fear or intimidation, and, our Father, we pray for Thy help that we may preserve and keep that liberty which is ours. We thank Thee for the privilege of having some share in the doing of the work of the world. Our tasks may be different, but they may be equally important. We thank Thee for these who minister to us in our time of sickness. God bless them; give them wisdom; give them courage; give them grace. We pray for those who are sick in their homes and in the hospitals; we pray for those nurses who minister to them so patiently, and for the doctors. Our Father, we believe that Thou art anxious that we shall be well and strong. We want to be well and strong so that we shall be happy and able to do our work, and we thank Thee for these who cooperate with Thee in the task of making us well and strong. God bless them in their deliberations here today and in the work which they are doing week after week, day after day.

Keep us, our Father, and help us all to have our share, in doing the work of the

world. We ask it in the Master's name. Amen.

PRESIDENT SCOTT: We will now be welcomed by E. B. Bradley, Lexington.

ADDRESS OF WELCOME

E. B. BRADLEY, Lexington: Mr. President, Dr. McCormack, Members of the Kentucky State Medical Association and Members of the Ladies' Auxiliary, Ladies and Gentlemen: Representing the Fayette County Medical Society and the medical profession of Fayette County, I have been asked to give you a word of greeting. You know that you are welcome here; in fact, we had quite a fight last year at Bowling Green to be allowed to entertain you this year. We promised you, if you came, that we would change the weather conditions somewhat and by putting the meeting one week later than it was at Bowling Green you see we have given you practically perfect weather. I hope we shall be able to fulfill our other promises and that we will show you a good time while you are here in Lexington.

A little later Dr. Vance will tell you what has been provided for your entertainment. We are very proud, of course, a little too proud, I expect, of Central Kentucky, and at this time of the year, while not at its best, I think the country looks very beautiful.

You know that we have quite a few hospitals here which I hope you will visit if you care to. The Good Samaritan and the St. Joseph's Hospitals are general hospitals. Then there is the Julius Marks Tuberculosis Sanatorium and the Veterans Facility Hospital. You are going this evening to the United States Public Health Service Hospital, known as the Narcotic Farm. The government hospitals, of course, outshine all the other hospitals. As you know the government has practically unlimited funds so that their hospitals are worth going to see.

Another thing I want to mention, though it isn't in my welcoming address, is our new Board of Health building. Lexington and Fayette County appropriated funds to build a new building which quarters our local Board of Health. Lexington and Fayette County, as you know, have combined their two health departments into one. I think that has been done in only four counties in Kentucky. We are very proud of those efforts that we have made. To accomplish this, of course, cooperation of the city and county has been very necessary. I should like for you to see the Board of Health building.

We want you to have a good time while here. It will be difficult to keep you away

from the scientific sessions, but in addition we should like you to enjoy yourselves in any way you like best.

As I have said before, we are glad to have you here in Lexington and I welcome you in the name of every doctor in Fayette County.

PRESIDENT SCOTT: Dr. Griffith will respond to Dr. Bradley's address of welcome.

RESPONSE TO ADDRESS OF WELCOME

D. M. GRIFFITH, Owensboro: Dr. Bradley, the members of the Kentucky State Medical Association greatly appreciate this courteous welcome you have just extended us. We came to Lexington knowing what our greetings were going to be, because tradition has taught us that Lexington has a hospitality all its own.

Over the Wilderness Trail into this paradise of nature came a rugged and remarkable manhood which built the magnificent civilization that has been Lexington's legacy down through the ages, and the superb citizenry of that civilization gave to Lexington and Fayette County many outstanding highlights in the years that followed. It gave Henry Clay and Robert J. Breckinridge to statecraft and the ministry; Drake, Dudley and Sam Brown to medicine; it gave John Morgan to its cavalry of bravery; it gave James Lane Allen to literature; it gave the first seat of learning west of the Alleghenies, Transylvania, which was a beacon light to aspiring young men when Kentucky in its infancy was bivouacking on the Dark and Bloody Ground. It gave that unique gift, one of the rarest of the world, the beautiful and famed Blue Grass, and it gave some of the most wonderful horses in the world to graze on and glorify that grass; Lexington, Longfellow, Hindoo, Hanover, Ben Brush, Sweep, Playfair and Man o' War, all held their equine courts here to establish their thoroughbred dynasties that are dominant to this day. And where else, save at Saratoga, is there a race course operated by sentiment and for pleasure, not pocket? Today the citizen, the soldier, the patriot, the sport, can alike find pleasure and joy to their satisfaction in the enchanted charms of Keenland, that beautiful spot of nature where General Lafayette stopped to tread the soft sod of the Blue Grass and to rest his weary body in the regal vale of its colonial hospitality.

Lexington had many great doctors in the years that are gone. They were strong-charactered men. They were educated and accomplished gentlemen who conducted themselves with such poise and dignity that they towered like giant oaks above their fellow-men here at Lexington. I

have many memories of the few of those old men I knew, and today I tenderly drop a tear of affection upon that memory. One could hardly speak in retrospect without comparing medicine then and now. The easy life of today is in marked contrast to the sleepless drudgery then, but, my friends, the labor, learning, and loving natures of those old Lexington doctors linger on and glorify the profession here today. Well might James Whitcomb Riley have had them in mind when he said:

"Of all the fellows in this here town,
The old doctor was the greatest,
Jes' take him up and down."

To you Lexington doctors of today, this for your benefit and your warning I have to say: that in practicing your profession here in Lexington you are tilling medical soil that is almost holy. The dawn of medicine here had Drake, Dudley and Sam Brown; the noonday of medicine here had Skillman, Scott, Whitney, Lewis; a later day had that captivating personality and that capable surgeon, Dave Barrow, it had that intellectual and energetic specialist, Ad Stucky, it had the literarily inclined and able surgeon, A. H. Barker. With these as your predecessors and the ancient and alluring medical library of Transylvania, the first medical college of the West, as your heritage and inspiration, if you fail to burn the midnight oil to reach their standard you will fail in the twilight of medicine here to pass the secret sceptre on to those who will carry it to the setting sun.

It is easy to understand why the doctors of Kentucky looked forward to this meeting and longed to come. They knew that your every promise would be fulfilled, that their every desire would be gratified, and that their storehouse of medical knowledge would be greatly added to by this meeting. But, Dr. Bradley, far greater than any material anticipated pleasure is the spiritual joy of being here today, because Kentucky doctors come to Lexington much as the Mohammedan goes to Mecca, with hearts afire and heads bowed in reverence, and, sir, with that loyal impulse commanding us today we stand in line among Kentucky's medical marchers to help carry forward to a more glorious future the banner of our progressive profession. We thank you. (Applause.)

A. T. McCORMACK, Louisville: Mr. President, I should like to announce a slight change in the program. You will note that there is a panel discussion on blood this afternoon at five o'clock by Dr. J. W. Scott,—that is after he becomes a private again, he won't be in his presidential capacity. I am sure that

ductor of the orchestra, I am informed, and he will have a group of soloists with him who will discuss the knowledge that he has. He says he is going to learn a good deal himself. Instead of having the panel discussion at five o'clock this afternoon it will be in the Thoroughbred Room, naturally, you would expect that of Dr. Scott, at eight o'clock in the morning. At the same time in the Ball Room there will be a symposium on fractures. The surgeons, it is suggested, get up very early anyway, and they will be particularly interested in the symposium that is going to be presented by the internists, and in turn the general practitioners will divide themselves up depending on whether they are more engaged in interest in fractures and reducing malpractice suits, or reducing fractures and stopping malpractice suits, or in the blood stream. Both of them are intriguing, and it is rather sad to all of us that the crowded program this afternoon and the time it will take us to get out to the Public Health Hospital for the dinner at six o'clock, necessitates this postponement. The ladies are particularly invited tonight to gladden our eyes, and we will be refreshed by the addresses that will be delivered. It will be a very real occasion.

I just had a special telephone message from Governor Johnson, and he asked me to say to you as an organization and to each of you as individuals how deeply he appreciated the fine response that he was receiving from the medical profession of Kentucky in the preparedness plans. He wanted me to say to you that that response has been practically unanimous from the citizenship of the state, and he asked me to say particularly that anxiety was frequently expressed by those who enjoy criticism as a mode of life as to the integrity of the state government in regard to the care of our unfortunates who are in the hospitals for the insane and feeble-minded, and he wanted to assure you that the Chandler-Wallis Act would be enforced in letter and in spirit in everything that would be done here in his administration. I am very happy to present you with that reassuring statement from a man whose integrity and whose distinguished service we all admire so much.

Mr. President, I should like to call attention, if you will permit me to do so, to the presence in the room of two rather unusual guests. It is difficult to pick anybody for special distinction, but I notice in the hall one of our ex-Presidents who was Treasurer of the Association for a long time and who is still one of its greatest Treasurers, and I would like to ask you, sir that Dr. McClure be escorted up here

and put in this comfortable chair so that everybody may look at him and have the joy of seeing his beaming countenance. He is like the sun, he shines on us and makes us all feel happier.

D. M. GRIFFITH: I want to be permitted to escort him up here. (Applause.)

SECRETARY McCORMACK: The other man I would like to have stand up and have you see is one of the modest men who came from a practice up in the mountains where he did a tremendous amount of work. I would like for Dr. J. M. Mahaffey, Richmond, to stand up a minute. He was the first man who found hookworm disease in Kentucky. He made a great contribution because the scientists had told us there was no such thing in this state. Dr. South and Dr. Mahaffey were the only two people who didn't pay any attention to that, and we found a third of our people were afflicted with that infestation. I feel like honoring and loving Dr. Mahaffey when I see or hear him. (Applause)

PRESIDENT SCOTT: It is a great pleasure to ask Dr. Griffith to bring to the platform my friend and the friend of all of us. Dr. W. B. McClure, of Lexington.

D. M. Griffith, Owensboro, escorted to the rostrum W. B. McClure, Lexington. (Applause)

D. M. GRIFFITH, Owensboro: My friends, it is a greater pleasure and privilege and honor to me to be asked to escort Dr. McClure up here than it was to the President to invite him. I want to introduce to you a blarney Scotchman. (Applause)

W. B. MCCLURE, Lexington: Mr. President, this unexpected pleasure puts me on the spot, very much as was Judge Milton J. Durham, whom you older men remember, who lived in Danville. He was appointed Controller of the Treasury under Grover Cleveland. The Judge was very impressed by this distinguished honor, and it was a big position. Being naturally a little egotistical, he imagined that he was the center of all attention. When he went to Washington, the first Sunday he was there he decided he would go to church. He went to one of the churches, and the custom was for the congregation to stand during prayers. The Judge dressed himself becoming for the occasion, and as he strode up the aisle, after he got about half way up, the congregation all rose to their feet. He hesitated a moment and thought, "That must be in honor of my distinguished presence," but he was a little in doubt until the minister began, "O, Thou great controller of the universe," whereupon the Judge turned and bowed and said, "I thank you, I thank you." So being fairly sure of myself I will say "I thank you" (Applause)

PRESIDENT SCOTT: I would like to have the pleasure of introducing to you your most recent honorary life member, Dr. J. G. Wilson. Dr. Wilson, will you come up? (Applause)

J. G. WILSON, Lexington: I am certainly surprised to know that I am a life member of the Kentucky State Medical Association.

PRESIDENT SCOTT: You were elected yesterday.

J. G. WILSON: I assure you, sir, that I consider it a great honor, and I thank you from the bottom of my heart for this token of your regard. (Applause)

PRESIDENT SCOTT: Having completed a delightful year in your service, it now becomes my great privilege to introduce to you your President, a distinguished clinician, a wise councilor to this Association for many years, a loyal friend, Dr. Austin Bell, of Hopkinsville. (Applause)

Austin Bell, President-Elect, took the Chair.

PRESIDENT BELL: Not being as versatile as those who have spoken already, I will take the liberty of reading the remarks that I have to make.

RESPONSE BY AUSTIN BELL, M. D.

President Scott and Gentlemen of the Kentucky Medical Association: I accept this gavel from your hands as a badge of honor, graciously bestowed by the medical profession of Kentucky.

In following in your illustrious footsteps Mr. President, I am filled with conflicting emotions. A realization of the high goal set by you as the presiding officer and leader of this distinguished group and keenly conscious of my inability to approximate your ideals and accomplishments indeed humble me, yet emboldened by the generosity and confidence of the profession and with gratitude in my heart, surely any latent talents, unaroused ambitions or unmet challenges will be activated into a positive effort in the interest of our people with your help and cooperation.

Our membership includes accomplished, loyal and experienced leaders who through the years have guided wisely the organized profession of Kentucky and others equally as capable with ideals as loftly and motives as pure likewise desirous of holding aloft our standards of professional accomplishments and rendering the most intelligent and helpful service. Objectives are the same and intelligence demands that in this time of turmoil and strife, unitedly we should strive in the common purpose of rendering the most complete medical service to our citizenship. Individuals mean little except as they form

an integral and necessary part of our plans and purposes but great principles must be maintained at any cost.

The success of this meeting clearly evidences the character and unselfishness of our membership. F. M. Stites, Jr., of Louisville readily accepted the responsibility of our program and the topics and papers will attest the efficiency of the service rendered by him. Virgil Simpson graciously devoted his time and talent toward preparing this magnificent Scientific Exhibit for which we are duly appreciative and which all should visit and enjoy. Stanley Parks prepared this most interesting Art Exhibit, a thing in which all should take interest. Nor can too much be said for the various committees that have made possible this wonderful meeting requiring time, thought, talent and work to perfect its many details and these indicate the splendid type profession constituting our hosts.

Bickering, strife, jealousies, personal ambitions and every unworthy thought and desire should be subordinated to the common good and highest service. A united and determined profession in its accomplishments is limited only by the lofty desires envisaged, and the determination and effort of perfection.

With your help and cooperation, your encouragement and charity and under the wise counsel of experienced and resourceful men who have proven potent factors in organized medicine in the State and Nation, every effort shall be made to continue the high ideals of professional attainment of the past and perfect an organization responsive to the needs of all our people.

The future is in your hands and as your servant I stand pledged to render the best service of which I am capable and promise to devote the time, mental and physical effort and such talents as may be possessed to this task. I appeal to your judgment, wisdom and unselfish devotion to duty that together we may approach our problems in a spirit so just and commanding as to deserve and attain success.

Surely Kentucky's motto should be our Shibboleth for only in unity and loyalty is found in professional strength.

SECRETARY McCORMACK: We are very fortunate in having as one of our most active members and public servants, one of our most loyal and effective members and officials, Dr. Lillian South. Fortunately she has the acquisitive instinct and she has searched the highways and byways for the jewels that have adorned our art and science in the past. She has here two daguerreotypes of Dr. Sneed that have been given to her by Dr. Sneed's granddaughter

as the permanent property of the Association. In addition to that, I want to call your attention to the book from which Dr. Horine has quoted in the program, the "History and Mode of Management of the Kentucky Penitentiary," published by Dr. Sneed many years ago. It is as current today as it was then. As far as we know, there are only two copies in existence, and so far as we know nobody in Kentucky ever read one of them because it would be impossible for anybody to have read this book and to have continued the disgraceful administration of our state penal institutions that has existed since Dr. Sneed's day. He showed in this book the horror of sending to the penitentiary curable patients who were not treated. A great man wrote this book and a great soul was our President then, as we have just had definite proof; we have had the apostolic succession in his distinguished successor. It is a great book. It will be in our safe and will be kept there except if anybody is inspired to do something about this thing we would be glad to let them read it if they can give a thousand dollars as bond that it will be returned as soon as they have finished with it. It is a very great privilege to present these things for Dr. South, whose modesty kept her from doing so, and because I was trying to carry out Dr. Scott's dictum that everything had to be very brief.

PRESIDENT BELL: We will next have the report of the Committee on Arrangements, by C. A. Vance, Lexington.

REPORT OF COMMITTEE ON ARRANGEMENTS

C. A. VANCE, Lexington: Mr. President, Members of the Kentucky State Medical Association, Ladies and Guests: It is with particular pleasure that I stand before you here today. In 1910 I was on the Arrangements Committee of the meeting of that year here; in 1920 I was also on the committee; in 1931 I was on the committee with Dr. Redmon, who is now dead, many of you remember him; and in 1940 I am here again. I hope I shall be here the next time we meet in Lexington. (Applause)

We really, as Dr. Bradley said, ordered this weather for you. We ordered it cool and we almost got it too cool last week; we nearly froze here for three days. It warmed up a little and we hope that it will stay this way the rest of the time.

The buffet dinner tonight at the United States Public Health Service Hospital will be served at six o'clock. We expected to have all of the ladies and guests present and we will have three or four buses which will make round trips. We will see that everybody gets back.

Dr. Reichard and Mrs. Reichard will entertain us, and Dr. Reichard has suggested

that if any of you want to see something of the institution you come out there as early as 4:30 or 5:00 and that will give you a little time. The speakers will speak at the hospital after the dinner. We will adjourn to the auditorium out there, a beautiful auditorium, the best we have in Fayette County outside of the churches. It holds about 1,400 and it is a very nice place. I am sure you will all have a grand time. We will have the public meeting out there.

Tomorrow the annual subscription dinner will be held in the Gold Room of the Lafayette Hotel at 6:30 p. m. This is the dinner at which each man buys his own ticket. The tickets are one dollar and a quarter. We have furnished a nice dinner and we hope all of you will be there with your wives and families or anybody else you want to bring. There are seats for about 375 and we hope they will be filled. The President will address us, and also Dr. Harrison will address us. Tickets are available at the registration desk and today there will be several young ladies of the doctors' families to sell tickets to all of the men.

We have two general parties, cocktail parties or teas or whatever you call them. In Boston they call them teas, and you get tea at the Boston tea parties, too. Dr. Scott at his home will entertain for the members of the Association at five o'clock tomorrow evening. This afternoon at the office of Drs. Wilson, Herring, Barrett and Thomas there will be a cocktail party about 4:30. They said 4:00, but I don't think we ought to break up the scientific program to get tea. The same invitation holds good for Dr. Wilson and Dr. Scott.

The ladies today will have a luncheon at 12:30 at the Lafayette Hotel in the Red Room. At that luncheon Mrs. Smith will give one of her readings. After that they will have a short drive, if they feel like it, and then go to a tea at the country club at three o'clock. After that they will be brought back to the hotels and will go on to the Narcotic farm. Tomorrow they have a drive to Harrodsburg at noon and the annual state association luncheon at one or a little after. Then the trip around Harrodsburg and the drive to the McDowell home and on to Lexington. Of course the ladies are invited to the annual dinner.

It is a great pleasure to have you all here and we hope you will have a good time. If there is anything that you don't get that you want, just see some member of the committee.

H. G. Herring, chairman of golf, will now make his announcement.

HARRY HERRING, Lexington: It is a great pleasure to welcome the members

of the State Association who play golf, we have made arrangements at the Lexington Country Club for you to play any time you wish to play on any of the days. It will be a handicap play; you must have your handicaps from your local pro and club. The green fees will be free for the first eighteen holes. If you wish to play after that you will have to pay a dollar green fee.

We will have a man out there to take care of you, and we wish you would play in foursomes, because we have a number of prizes to be given. Any questions you would like to ask I will be glad to answer for you.

We have the following prizes, which I think will be interesting: low net, a golf bag; low gross, a putter; blind bogey, a golf jacket. That number is between 70 and 80, so you had better select your handicap to fit in between those numbers that you wish to play for blind bogey. The most pars we will give a sand iron, and the most fours an umbrella; most fives, head cuffs for your golf clubs; low foursome will be one dozen balls, three to each man in the foursome; most birdies an umbrella; highest score a golf shirt, and we will have for the ladies a golf tournament and will give three prizes, low net a golf bag, low gross a rain suit, high score an umbrella.

It reminds me of the time when Abe Martin used to write in the local papers here, and he said, "Aunt Sophie Klutz broke her leg and she had to crawl five miles to the golf course to get it set." I hope you gentlemen will come out and play golf and have a good time, because we will try to entertain you. (Applause)

The following papers were presented:

Report of Case of Fibrosarcoma of the Ileum, by Herman Mahaffey, Louisville; discussed by Malcom Thompson, Louisville; Wallace Frank, Louisville; closing discussion by Herman Mahaffey, Louisville.

Case Report: Parathyroid Tumor, by R. Arnold Griswold Louisville.

Case Report: Pheochromocytoma of the Adrenal with Paroxysmal Hypertension. A Case Relieved by Surgery, by Joseph E. Hamilton, Louisville; discussed by James R. Hendon, Louisville.

Some Behavior Problems in Infancy and Early Childhood, by W. F. Lamb, Russellville.

Epidemiology of Diphtheria, by Charles D. Cawood, Lexington; discussed by Hugh R. Leavell, Louisville; A. T. McCormack, Louisville; closing discussion by Charles D. Cawood, Lexington.

Vitamins, Their Use in Children, by T. J. Marshall, Paducah; discussed by Lillian

The Oration in Surgery, Lung Abscess, was given by Allen E. Grimes, Lexington. The meeting recessed at 12:30 p. m.

SCIENTIFIC SESSION

TUESDAY AFTERNOON, SEPTEMBER 17

The meeting was called to order at 2:00 p. m. by President Bell.

The following papers were presented:

Appendicitis in Children, by James H. Pritchett, Louisville; discussed by Charles A. Vance, Lexington; Wallace Frank, Louisville; J. Garland Sherrill, Louisville; Woolfolk Barrow, Lexington; A. D. Willmoth, Louisville; A. T. McCormack, Louisville; closing discussion by James H. Pritchett, Louisville.

Obscure Fevers, by H. V. Noland, Louisville; discussed by Virgil E. Simpson, Louisville, and closing discussion by H. V. Noland, Louisville.

Uterine Bleeding, by M. J. Henry, Louisville; discussed by C. W. Hibbitt, Louisville; W. L. Hume, Louisville; A. D. Willmoth, Louisville; Wallace Frank, Louisville; F. P. Strickler, Louisville; M. J. Henry, Louisville, closing discussion.

An Evaluation of the Present Status of Male Hormone Therapy, by James R. Hendon, Louisville; discussed by A. Clayton McCarty, Louisville, and Laman Gray, Louisville.

The meeting recessed at 4:30 p. m.

BUFFET DINNER

TUESDAY, SEPTEMBER 17

A buffet dinner was held at the United States Public Health Service Hospital, following which there were addresses by Nathan B. Van Etten, New York, N. Y., President of the American Medical Association, on Medical Horizons; Arthur W. Allen, Boston, Mass., Surgical Consideration of the Gall Bladder and Bile Ducts; Factors Influencing Mortality and Morbidity; and by J. D. Reichard, Medical Officer in Charge of the United States Public Health Service Hospital, on the care of narcotic addict patients.

The meeting adjourned at 8:30 p. m.

SCIENTIFIC SESSION

WEDNESDAY MORNING, SEPTEMBER 16

The meeting convened at 9:00 a. m., President Bell presiding.

The following papers were presented:

History of Chemotherapy in Urinary Infection, by J. Andrew Bowen, Louisville; discussed by D. E. Scott, Lexington; closing discussion by J. Andrew Bowen, Louisville.

Differential Diagnosis of Breast Tumor, by James A. Ryan, Covington; discussed by Louis Frank, Louisville, and J. Garland Sherrill, Louisville; closing discussion by

Gastroscoy as an Aid in the Diagnosis of Stomach Disease, by Sam A. Overstreet, Louisville; discussed by Clark Bailey, Harlan; Frank Stites, Louisville; Wallace Frank, Louisville; John W. Scott, Lexington; closing discussion by Sam A. Overstreet, Louisville.

Indications for and Choice of Operation in Peptic Ulcer, by Fred W. Rankin and Coleman C. Johnston, Lexington; discussed by Wallace Frank, Louisville; Irvin Abell, Jr. Louisville; J. Garland Sherrill, Louisville; Frank P. Strickler, Louisville; closing discussion by Fred W. Rankin, Lexington.

The Oration in Medicine, The Evolution of Our Knowledge of Tuberculosis, was delivered by Oscar O. Miller, Louisville.

A tribute was paid to Dr. Louis Frank, Louisville, in honor of his fiftieth anniversary of attendance at Kentucky State Medical Association meetings. Senator Bush. Mount Sterling, was introduced.

The meeting recessed at 12:55 p. m.

SCIENTIFIC SESSION

WEDNESDAY AFTERNOON, SEPTEMBER 18

The meeting convened at 2:00 p. m., President Bell presiding.

The following papers were presented:

Syphilis, Its Modern Management, by Russell E. Teague, Paducah; discussed by F. W. Caudell, Louisville; John Lewis, Louisville; I. F. Kanner, Lexington; and Lillian South, Louisville; closing discussion by Russell E. Teague, Paducah.

Hoarseness, An Important Symptom, by Shelton Watkins, Lexington; discussed by M. G. Buckles, Louisville; closing discussion by Shelton Watkins, Louisville.

Joint Fractures, by Guthrie Yoehlee Graves, Bowling Green; discussed by W. Barnett Owen, Louisville; R. A. Griswold, Louisville; W. M. Ewing, Louisville; and Lillian South, Louisville; closing discussion by G. Y. Graves, Bowling Green.

Scalenus Anticus Syndrome, by Franklin Jelsma, Louisville; discussed by R. A. Griswold, Louisville; John D. Campbell, Louisville; C. F. Long, Elizabethtown; Thornton Scott, Lexington; and George H. Gregory, Versailles; closing discussion by Franklin Jelsma, Louisville.

The Honorable Ben F. Shields, Speaker of the House of the Kentucky Legislature, and Fred Zapffe, Chicago, Secretary of the Association of American Medical Colleges, were introduced. Dr. Zapffe spoke briefly and was elected a life member of the Association.

Dr. Joseph W. Pryor, Lexington, was introduced.

The meeting adjourned at 4:30 p. m.

ANNUAL SUBSCRIPTION DINNER

WEDNESDAY, SEPTEMBER 18

The annual subscription dinner was held

George H. Gregory, Versailles, introduced the President, Austin Bell, Hopkinsville, who delivered his presidential address, Aims and Aspirations.

Tinsley R. Harrison, Nashville, Tennessee, the guest speaker, spoke on The Management of Patients with Acute Myocardial Infarction.

The meeting adjourned at 10:00 p. m.

SCIENTIFIC SESSION

THURSDAY MORNING, SEPTEMBER 19

The meeting convened at 9:00 a. m., President Bell presiding.

The following papers were presented:

The Problem of Drainage Following Operation in the Bile Passages, by J. G. Gaither, Hopkinsville; discussed by Irvin Abell, Jr., Louisville; closing discussion by J. G. Gaither, Hopkinsville.

Applied Pathology of the Paranasal Sinuses, by W. A. Weldon, Glasgow; discussion by Samuel Marks, Lexington; and closing discussion by W. A. Weldon, Glasgow.

The Relative Value of Insulin in the Treatment of Diabetes, by C. C. Turner, Glasgow; discussed by John W. Scott, Lexington; J. A. Orr, Paris; W. A. Weldon, Glasgow; R. N. Holbrook, Louisville; Wallace Frank, Louisville; Lillian South, Louisville; Austin Bell, Hopkinsville; closing discussion by C. C. Turner, Glasgow.

Vomiting of Early Pregnancy, by Edwin P. Solomon, Louisville; discussed by Stanley S. Parks, Lexington; Samuel M. Rickman, Paris; Thornton Scott, Lexington; and Edward Speidel, Louisville; closing discussion by Edwin P. Solomon, Louisville.

The report of the Committee on Scientific Awards was presented by Thornton Scott, Lexington.

The meeting recessed at 12:00 o'clock.

SCIENTIFIC SESSION

THURSDAY AFTERNOON, SEPTEMBER 19

The meeting convened at 2:00 p. m., President Bell presiding.

The following papers were presented:

Edema, Types and Management, by L. T. Minish, Frankfort; discussed by C. N. Kavanaugh, Lexington.

Obesity, by R. N. Holbrook, Louisville; discussed by John Harvey, Lexington.

The Treatment of Appendiceal Peritonitis, by Woolfolk Barrow, Lexington; discussed by E. Dargan Smith, Owensboro; H. Smith Howard, Hazard; closing discussion by Woolfolk Barrow, Lexington.

Early Diagnosis and Treatment in Neurosyphilis, by J. H. Rompf, Lexington; discussed by Arthur Kasey, Lakeland; J. G. Wilson, Lexington; closing discussion by J. H. Rompf, Lexington.

The meeting adjourned sine die at 3:50 p. m.

HOUSE OF DELEGATES
NINETIETH ANNUAL MEETING
KENTUCKY STATE MEDICAL
ASSOCIATION

FIRST SESSION, MONDAY, SEPTEMBER 16, 1940

The first meeting of the House of Delegates of the Kentucky State Medical Association at the Ninetieth Annual Meeting, held September 16-19, 1940, at the Phoenix Hotel, Lexington was called to order at 2:00 p. m., Monday, September 16, John W. Scott, Lexington, President, presiding.

PRESIDENT SCOTT: The House of Delegates of the Ninetieth Session of the Kentucky State Medical Association will now be in order.

We will have the report of the Committee on Credentials, Dr. Isaac H. Browne, Winchester, Chairman. Have you his report, Mr. Secretary?

A. T. McCORMACK, Louisville (Secretary); I have the roll as prepared in the Secretary's office, recorded from credentials from each county for the delegates and alternates that have been elected. I also have the credentials for certain delegates who have been appointed as substitutes by the President in accordance with the By-Laws, for the Credentials Committee to approve later, and I move that the roll of the House as prepared be accepted as the report of the Committee on Credentials.

The motion was seconded.

PRESIDENT SCOTT: Is there any discussion? Are there any questions as to the validity of this report? If not, I will ask for the question. All those in favor of accepting this as the roll of the House of Delegates of this Session will indicate by saying "aye"; opposed "no." It is carried.

The next in order is the roll call by the Secretary.

The Secretary called the roll.

SECRETARY McCORMACK: There are 83 present, which is a quorum.

PRESIDENT SCOTT: You have heard the roll. There is a quorum present.

The next order of business is the minutes of the last meeting.

C. C. TURNER, Glasgow: I move the reading of the minutes be dispensed with.

The motion was seconded and carried.

PRESIDENT SCOTT: Next is the report of the Committee on Scientific Work, Dr. Bell, Chairman.

AUSTIN BELL, Hopkinsville: The program for the scientific sessions has been published, and was prepared largely by Dr. Frank Stites of Louisville, and Dr. Virgil Simpson has prepared our scientific

exhibit. The recent JOURNAL published both and I move the report be accepted.

The motion was seconded and carried.

SECRETARY McCORMACK: I call your attention to the fact that that makes the printed program the official program, which can be changed only by action of the House of Delegates.

PRESIDENT SCOTT: As to any extension of time?

SECRETARY McCORMACK: Extension of time can't be done by anybody and won't by the President, I am sure.

PRESIDENT SCOTT: I want to take this opportunity to extend the privilege of the floor to the President-Elect. That ought to be, it seems to me, a matter of right and not of courtesy of the Chair, but I take pleasure in extending the privilege of the floor to the President-Elect.

AUSTIN BELL, Hopkinsville; Thank you, Mr. President.

PRESIDENT SCOTT: The next order of business is the report of the Committee on Arrangements, Dr. Vance, Chairman.

C. A. VANCE: The House of Delegates will meet here this afternoon and tonight. Thursday morning the House of Delegates will meet in the Ball Room, which is the Gold Room, of the Lafayette Hotel. There is not a room in this hotel large enough, and we did not feel like putting them in here and cutting out the scientific session at nine o'clock if the House of Delegates happened to be late. All of the scientific sessions will be held in here, and a detailed report of the arrangements will be given in the morning at the opening session.

H. H. HUNT, Mayfield: How about tonight?

C. A. VANCE: They meet in this room.

PRESIDENT SCOTT: The program is set for seven.

ERNEST B. BRADLEY, Lexington: I think seven is a little early. I think seven-thirty would be better. I move that it be made seven-thirty.

The motion was seconded by C. A. Vance, Lexington, and J. B. Lukins, Louisville.

PRESIDENT SCOTT: Is there any discussion? Those in favor of the motion indicate by saying "aye"; opposed "no." The time of meeting this evening, then, will be at seven-thirty in this room.

The next order is the report of the President. The President has very little to report except what will be included in the reports of the committees which I have appointed and of the standing committees. A few general observations may be in order.

The fact that we have come to stand at Armageddon during my term of office is

perhaps the outstanding thing to me in this year's events. The American Medical Association, in order that the medical profession may be prepared to do its share in whatever emergency confronts this country, has already taken efficient action. It is interesting to note that one of our number is the Chairman of this most important committee of the American Medical Association, and that another of our number is the representative of this Fifth Corps Area consisting of some four states. Dr. McCormack has been made the state representative on the Medical Preparedness Committee. Dr. Vance, the Chairman of the Council, and your President selected Dr. McCormack as state representative. He has been very effectively prosecuting this work, particularly in the effort to get a complete return of questionnaires by the profession. I understand they have replied very satisfactorily, and the percentage the last I heard, was over 80 per cent, which I believe compares very favorably with other states. This is the business in hand as far as preparedness is concerned in this state.

There has been a peculiar lack of appreciation on the part of some of our otherwise very intelligent members, who have felt that by reason of the fact that one is beyond draft age he need not reply, others for reason of advanced years. As all of us should know, every physician is expected to return that questionnaire.

This emergency has overwhelmed and submerged every other consideration in the medical profession at large. Up until the development of this emergency, the question of the status of our profession with reference to the assaults on it from without and the efforts to lower its dignity and to destroy its standards has gone on apace. Dr. Gardner, my predecessor, was able to view with satisfaction the fact that a federal judge had decided that medicine was a profession and not a trade. Now we are compelled to face the fact that a higher court has decided that that judge was wrong, and the leaders of our profession are at the bar of criminal justice to be tried as criminals by reason of their charged violation of the law under the Sherman Act in restraint of trade. Just what effect the national emergency will have on this situation time will tell. Totalitarian trends certainly will be accelerated, and I fear that our situation will not be improved after the emergency has passed.

One other point to which I think your attention should be called is the work of the Advisory Committee to the Division of Hospitals and Mental Hygiene, Dr. Gard-

ner's committee. That committee, with the able assistance of Dr. Wilson, their appointee, has made splendid progress. The medical personnel of the institutions has reached a point which it has never even approached in the past. The situation is generally satisfactory. There is still opportunity for improvement as to freedom from political influences in the employment of the attending non-professional personnel. That, however, is not the chief issue. The situation generally is good.

The end of my very happy tenure of office is approaching. I want to say to you again how happy I have been at your selecting me for the highest office within your gift and for the greatest distinction of my professional life. I have had most happy relations with all of you, particularly with the Secretary's office and with all its personnel. I want to thank you again. (Applause)

The next order is the report of the Council by the Chairman of the Council, Dr. Vance.

REPORT OF COUNCIL

C. A. VANCE, Lexington: Mr. President, Members of the House of Delegates: Following the precedent since the formation of the Council, we have published in the JOURNAL the report of the certified public accountant who has audited the accounts of the Secretary and Treasurer. We have published this report in its usual detail because every member of the Association, and especially every member of the House of Delegates, is entitled to know about the business of the Association.

The total income of the JOURNAL this year was \$7,680.72 as contrasted to \$7,030.53 last year and \$7,042.99 the year before. The cost of the JOURNAL was \$8,151.48 this year as compared with \$7,634.29 last year and \$7,554.37 the year before. The increase in the cost, outside of \$395 for the McDowell Supplement, has been due to the increase in the cost of paper almost entirely. Our advertising income shows an increase of \$650 over last year. From inquiries we are now receiving, we anticipate a larger income this coming year. The advertising income of the JOURNAL is due entirely to the loyalty of its members in giving preference, other things being equal, to the announcements appearing on its advertising pages. Most of our members read the JOURNAL. The value of its scientific articles to practicing physicians is apparent. The patronage of our members make the JOURNAL of real value to its advertisers. We have continued to reject more pages of advertising than we have accepted because we consider our-

selves under moral obligation to accept only announcements from firms and of materials we can approve.

The Council desires to express its appreciation to the American Medical Association, and especially to the Cooperative Medical Advertising Bureau for its continued successful campaign for national advertising. Particularly do we want to express our thanks to Messrs. Braun and Sandberg of the parent organization for their constant interest in the JOURNAL. Their advice has been of constant value.

The total paid membership for 1940 is 1,827 as against 1,765 enrolled for the same period last year and 1,731 for the preceding year. It is probable that the membership will approach 1,900 by the time of this meeting. This indicates a healthy increase in the work of the county societies. The number of meetings of the county societies has increased by almost twenty per cent over the year before when we were able to report a like healthy increase. There has been a similar increase in the attendance of physicians at the meetings in the several Councilor districts, in several of which much of the graduate work of the Association has been carried on for many years. The Council desires to re-emphasize the importance of regular meetings of the county societies; they are the backbone and essential part of the structure of our national medical organization. It has been the whole purpose of the American Medical Association to reason and decide together in its House of Delegates as to the principles upon which medical organization is based; to have the states recognize and adopt basic principles of procedure fitted to the needs and economics of each state, and then to have each county society determine for itself which principles and procedures, with what modifications, are necessary in order to adapt them to the improvement of medical care and the health of the people whom its members serve.

You will note from the report that we have paid \$65,952.00 on the purchase price of the J. N. McCormack Memorial Health Building which houses the offices of this Association and the State Department of Health, leaving a balance of \$84,047.01, with interest paid to September 1, 1940. You will note also that \$1,708.40 has been paid on the principal since the auditor's report. This transaction has not involved any expenditure on the part of this Association. We have been merely the agent through which the state is paying for the purchase of the property. The Council feels it is of the utmost importance that both the pro-

fession and the public be informed of each step taken in this transaction.

We are happy to report that, with the approval of the Council, the McDowell Memorial Committee has acquired the original Davenport portrait of Dr. Ephraim McDowell from his granddaughter, Mrs. F. B. Allen, of Okeene, Oklahoma. This portrait has a value far in excess of the one thousand dollars paid for it. Mrs. Allen contributed most generously because she wanted the portrait restored to Kentucky and felt this Association should be its rightful permanent custodian.

Up to this time, the McDowell Memorial Fund has a deficit of \$1,775.71, and the McDowell Memorial Committee reports that it hopes to raise this amount by the election of the remainder of custodians whom it is authorized to invite to become members.

For the past three years we have called your attention to the accumulation of source material for the preparation of a history of the medical profession of Kentucky. This work was undertaken jointly by this Association, the State Department of Health, and the Work Projects Administration. Drs. Emmet F. Horine and D. P. Hall, historians of the Association, have been in constant communication with the Federal Supervisor, Mr. Kenneth Rawlings and Miss Louise C. Morel. During the year the Council authorized the publication of the first results of these researches in the book, entitled, "Medicine and Its Development in Kentucky." This splendid essay, integrating the development of medicine in Kentucky with its social history, was written by Kentucky's master essayist, Mr. E. A. Jonas. Although its printing was delayed until just before the vacation period, preliminary sales have been extremely gratifying. I don't know whether we should say "extremely," because 258 copies have been sold, but it is a little surprising that 191 of these copies have gone outside of Kentucky, so you see not very many Kentuckians have bought their own history. We are bringing the importance of this publication to the attention of our members because we know the libraries of our Kentucky physicians will not be complete without it. The lady who is selling this book for the Association will have a place in the exhibit and we hope all of you will buy a copy. I don't see how any doctor in Kentucky could be without this book.

We hope to be able to announce soon the development of a plan for the collection and publication of a three to five-volume encyclopedia of the medical history of Kentucky which will place us amongst the

states which are preserving for posterity the priceless heritage of our glorious past.

The Council desires to call your attention to the emphasis placed in the program on the educational exhibits for this Session, both scientific and commercial, which are larger and better than ever before. I don't believe I have ever seen a Kentucky State Medical Association meeting which has had the scientific exhibits which we have here today and which are being put in today. We were able to put up booths for them, and the men have shown great interest. You must go and see them all. These exhibits, combined with the splendid scientific program of the meeting, offer a real post-graduate course to the interested student of medicine.

For sixteen years this Association has cooperated with the State Board of Health in the enforcement of the Medical Practice Act and other health laws for the protection of our people. Last year, the House of Delegates authorized the expenditure of not to exceed \$1,200 for this purpose. The Council recommends that this amount be appropriated for next year. It has not been necessary to use any part of this appropriation for the past several years, but it is important that it be available in case an emergency should arise where it might be needed. We urge the county societies to bring to the immediate attention of the State Board of Health any practice of medicine by unregistered practitioners. Such information should be accompanied by the names of witnesses upon whom these people have practiced, as this expedites the necessary legal procedure.

In this connection, we wish to call the attention of the medical staffs of hospitals of the state to the fact that it is a violation of law to employ any graduates of a school which is not recognized as reputable in this state, as interns or for any other positions in which physicians are usually employed.

We recommend that the appropriation of not to exceed \$1,200 for expenses of the Committee on Public Relations be continued for next year. Of the similar amount appropriated last year, \$960 was expended, and it is hoped an additional saving will be made this coming year.

For several years the House of Delegates has appropriated not to exceed \$500 as a reserve fund for the Woman's Auxiliary and the publication of its Quarterly Supplement to the JOURNAL. The only expenditure from this fund has been for the annual luncheon given to the members of the Auxiliary, as the Quarterly Supplement has been a self-supporting project from the

beginning. The American Medical Association is emphasizing the tremendous increasing importance of the Auxiliary, particularly in its public relations work. The Council regrets that many counties in Kentucky have not yet made the necessary effort to organize the intelligent women who know most about us and can best interpret us to a public which needs information in regard to the profession.

At the request of the American Medical Association, the President has appointed a Committee on Medical Preparedness consisting of the following: A. T. McCormack, Chairman, Louisville; John W. Scott Lexington; James A. Ryan, Covington; Clark Bailey, Harlan; E. L. Henderson, Louisville, and A. W. Davis, Madisonville. This committee will make a report to the House of Delegates, and we recommend that the Council be authorized to approve such expenditures as may be necessary for it to properly function.

The Council, by a unanimous vote, invited the officers of the State Medical Associations of the Southern States to be the guests of this Association at a dinner meeting during the sessions of the Southern Medical Association in Louisville in November of this year. Those of us at the Memphis session last year, acting under instructions in seeking the meeting of the Southern Medical Association for Louisville this year, told the conference of the Southern officials that the Kentucky State Medical Association would act as its host for this meeting. The expenses for this dinner meeting will be approximately \$250, and we respectfully request your approval for this amount.

We desire to reiterate and re-emphasize the purpose of the organized medical profession in Kentucky to maintain intact the prestige, influence and standing of the physicians of this Commonwealth. It is our high purpose to extend our knowledge of both disease and health continually and so to utilize our knowledge in practice that we can ameliorate or cure or prevent the one and preserve the other wherever either is possible for our people. We are opposed to the socialization, federalization or lay control of medicine in any shape or form; it is our purpose to maintain under any program which may be adopted in Kentucky, free choice of medical advisers for our individual citizens. To these ends this Association instructs the State Department of Health and the County Health Departments that their most important obligation is so to co-operate with other branches of the medical profession and with the people that they may be kept so

informed of the facts in regard to medicine that they will continue to repose their confidence in the only trained body of knowledge, thought and action that can give them any real hope for cure or prevention of disease.

The closing note in every report of the Council since its organization has been to emphasize again the paramount importance of the preservation of the integrity of the active organization of the county medical societies themselves.

The Council wishes to express again its very deep appreciation for the support it has received from the medical profession of Kentucky. It will continue in its efforts to accomplish the purposes of this Association as expressed by its House of Delegates. (Applause)

PRESIDENT SCOTT: This report will be referred to the Committee on Report of the Council.

The next order is the Treasurer's report.

SECRETARY McCORMACK: Mr. President the Treasurer's report is published in full in the annual number of the JOURNAL and I move it be referred to the Auditing Committee.

The motion was seconded and carried.

PRESIDENT SCOTT: The next order is the Secretary's report.

REPORT OF THE SECRETARY

SECRETARY McCORMACK: Mr. President, last year I made my report in half a minute and reserved the time so I could talk a little longer this time. This is the thirty-third opportunity I have had to appear before you as your Secretary, and I want to say to you that I don't believe any individual in the whole world has ever had a happier experience than I have had as the Secretary of your organization. I have realized in my service as your Secretary that I was serving a profession that was profoundly and sincerely desirous of giving public service of the highest order, meanwhile preserving our organization, not because of any selfish interest we have in it, but because its preservation and efficient organization are absolutely essential for the preservation of the civilization of which we are a component part. We are the best trained, best educated and most select group of American citizens; we have the knowledge and we have the intelligence and the vision to prepare and develop a program that is of tremendous importance.

It is perfectly natural that, in the course of such an organization, which has run very smoothly and very efficiently, from time to time suggestions should be made for its improvement, and these have uniformly been adopted by the profession and

we have made progress. We have been particularly fortunate, I think, in the fact that we have had the simplest form of constitution and by-laws. We live in a state where the whole progress of the state is continually being hampered by a constitution that was written when the populists were in power. During the temporary time they were in power they wrote into the constitution of the state every prohibition against progress that could possibly be made and every complication that could be thrown around the processes of government.

When the American Medical Association was reorganized it was a matter of great pride to those older members of the Association who are familiar with its history that the basis of that organization was built on the organization that had been developed in the Commonwealth of Kentucky by its medical profession. The constitution and by-laws of the State Medical Association as prepared by the original members of the Council of the Association, only one of whom is now present and who has been a member of the Council since that time, Dr. Griffith, were presented to the medical profession of the United States and adopted practically without change in any state in the Union. In the majority of the states there has been little change. Changes have been suggested frequently, and the Constitution of the American Medical Association and those of some of our constituent county societies have become so complicated that we have been involved in litigation in regard to taxation and restraint of trade and other things that were wholly unnecessary, and embarrassments to which we have not been and will not be subjected in Kentucky.

We have felt, and I still feel, that the house of medicine should be, as it has been in Kentucky since the State Medical Association was organized in 1851, managed and controlled and directed and served by the members of the Association, our physicians.

I was reminded by one of my friends not very long ago that I was not immortal and it wouldn't be a great while until somebody else would be doing this job. That is not at all a melancholy warning to me, because while I am not immortal in my physical being, the medical profession is immortal and there will always be found those of its members who will be willing to make the same sacrifices and have the same joy that I have had in my service and in my common occupation with you. I feel no anxiety about the future of medicine in Kentucky as long as men like you

are willing to give the service that you have given to it.

I feel especially grateful, and I know the House of Delegates feels especially grateful, to those of our members who have been made members of the Council of the State Medical Association. During all these years we have had eleven Councilors for the eleven medical districts of the state. The majority of the members of the Council have met with the county societies of their districts once or twice each year and many of them have been present at every meeting of every county society in their district, with very few exceptions, over many years.

It is always interesting at meetings of the Council, and in contact with individual members of the Council, to see the fine relationship that exists and the intimate knowledge that the members of the Council have as to the details of the work that is being done by the county societies in their districts. We have had some very long discussions in the Council, and yet at the conclusion of those discussions, so far as I now recall there has never been, since the original Council of which I was a member, in 1901, a vote that was not unanimous. Sometimes we haven't taken progressive steps possibly as rapidly as some would like for us to do, because we are naturally a conservative profession, but we have waited until we had practical unanimity in order to make progress, and I believe we have made more stable progress than we would have made otherwise.

Personally I don't think anything could indicate the effectiveness of our organization better than the response to the questionnaire that has recently been sent out by the American Medical Association. We will talk about it more in detail in the report of the Committee on Medical Preparedness, but when the first questionnaire was received and accompanied by two or three sheets that had been clipped from the JOURNAL, A. M. A., it was sort of a cold-blooded looking proposition and didn't have very much appeal to it. There was no personal element in it, and I was very much pleased and surprised that thirty per cent of our members responded to that first questionnaire, because it was the kind of circular that we all get from every kind of promotion that there is, and I imagine that a great many men glanced at it and thought it was another appeal for funds from somebody somewhere, and pitched it in the wastebasket without reading it. But immediately upon finding the response that had been made to it, we were able to secure from the American Medical

Association a list of those who had responded, and we wrote personal letters then to every physician who had not responded, as well as to those who had, and also sent to each member of the Council a list of the members in his district who hadn't responded, and a list to the county secretaries, and we got under way a campaign so that the profession might do its part. It is gratifying that the Canal Zone is the only governmental unit of the United States that has exceeded our record in responses. That is what we would have expected, and if the original letter had gone over Dr. Abell's signature to every member of the Association in Kentucky we would have gotten ninety per cent responses the first time.

I think it is very important for us to realize that this proposal that we are undertaking might almost be said to be an answer to the prayer that has gone up from the soul of Kentucky medicine. We are determined in Kentucky to continue to deserve the confidence of our people. No legislation has ever been written on the statute books of Kentucky in regard to medicine or public health that has not been previously approved in principle by this Association and, since its organization, by this House of Delegates. The fact that that is true shows you that our General Assemblies and our Governors have been responsive to the will of the profession because they have known that we were disinterested.

Now in this great national emergency to which our President has referred, the medical profession has a part to play, a perfectly definite part. We know full well that we must do some things that were done rather badly in the other war. We know, in the first place, that it is our obligation to see that our people at home have medical care during any emergency that may confront the country, because our women and our children are absolutely essential to the future development of our nation and they must be cared for and must be cared for right. In the other World War, many of our counties were entirely deprived of physicians, because in the emotion that naturally stirred us we went back to our primal instincts and became warriors. Of course, we humans fought a long time before we ever thought, and we revert to that type very readily. But there is no physician who stops to think who doesn't understand perfectly definitely that it is very much harder to carry on quickly with the individualistic and free peoples of a democracy, than it is with the armed forces of a country under dictator-

ship discipline. For that reason it is essential that we preserve our organization for the service of the people at home.

Our next major problem in this great emergency will be the mobilization of large numbers of people at the new industrial plants. There will be many places in the United States that are now farms where from a thousand to twenty-five thousand families will be suddenly assembled together, not in disciplined organizations as in Germany, but in municipalities that will grow up like mushrooms, and medical care and the protection of their health presents to our people and to our organization, particularly, a major problem that is our responsibility. We know definitely from the chart of organization the number of doctors that will be required per thousand or per ten thousand or per million of members of the armed forces, and they must be provided. That is all our problem.

As we have been saying all the time, and as in Kentucky we have been showing all the time, we know how to respond to these problems. There is but one way we can respond as sensible, sane members of an organization, and that is to know the exact place where each of us can serve the best and the most satisfactorily and retain both our happiness and our usefulness while giving service, and for that reason it is absolutely essential that there be assembled at some place an invoice, an inventory, of the profession of America. We must know how many specialists there are in surgery, we must know how many specialists there are in diseases of the eye or of the ear or of the nose and throat, we must know how many orthopedic men we have, we must know how many general practitioners we have, and we can only respond to the demand that is made on us by our people and our government if we know these facts.

The reason I say that this present moment is almost an answer to the prayer that has arisen from the soul of Kentucky medicine is that we have been doing these things in time of peace and in that way have prepared ourselves for this time of emergency.

It is a matter of considerable astonishment that although each of them has now received at least six of these questionnaires, there are still about 400 of our physicians who have not responded. It is a matter of some casual and historical interest that 200 of those who have not responded this time were the same 200 who didn't respond twenty-years ago, and there is no particular reason why they

should ever die because they don't ever have any strain put on them and they are taking no participative part in the progress of our profession or of civilization and it is perfectly natural for them to swim down the current of time. However, I think all of them will respond sooner or later because I think a personal call will be made that will make them understand that they are not committing themselves to become warriors, but are merely taking their place in the house of medicine that we ourselves propose to maintain.

I don't believe that even in Kentucky we have realized fully in many counties the importance of the county society. We come to meetings like this, we go to the American Medical Association and the Southern Medical Association and to the various special scientific bodies with which we are connected, and are of course tremendously entertained and interested and instructed by the scientific program. That makes us better doctors; it makes us better able to serve our patients; it is essential for the development of the profession and for its improvement; but it will do no good for us to be ever so efficient as physicians unless as an organization we are able to make the public aware and conscious of the high character of the service we desire to give them. We must continue to have their confidence, and in order to do that we must extend ourselves into the public by meeting with Rotary Clubs and other luncheon clubs, by talking to the women's clubs, by talking to our friends, and even in this day when we have become so purified that most of us who hold public office can't talk about politics, we still must remember that the politicians are just as powerful as they ever were and that they are still the people who run the government, and for that reason it is extremely important that we remain on friendly terms with them and that we take them to see our hospitals and our clinics and our offices and our health departments, so that they may know the beneficence of the service which we are rendering to them.

In Kentucky we have one peculiarity that we share in a certain degree with certain other of our Southern States where we have similar aims and objectives, in that this Association has direct control of the personnel and the policies of all of the departments that have medical function in government. This thing has worked so smoothly and so effectively and there has been so little criticism of it over a long period of years that every now and then it is perfectly natural for someone to arise amongst us and question the advisability

of the intimate connection between the Health Department and the State Medical Association. I think it is very important for us to realize that if it were not for that intimate connection we would have to have offices of our own, we would have to have this group of employees that most associations have to pay for, that are provided for us by the State Health Department and by the Commonwealth in return for the services we render in Kentucky. Instead of criticizing destructively and competitively the various medical and health activities of this state, when this body has criticisms to make they are constructive and they instruct the State Health Department and the county societies as to what they shall do, in principle, and the county societies in turn instruct the county health departments and the county health officers what they shall do in practice. I think this is as it should be. I can contemplate no greater disaster to the medical profession of our Commonwealth than for us to surrender any part of that intimate relationship that has been builded over these nearly hundred years of our common goal, the protection of the health and lives of our people and the cure of disease when they have become diseased.

I would like to say to each of you that I have always considered myself far more fortunate than most men. I had the privilege of living in a house with my Father during the period when all of the things we are now accomplishing were the dreams of the profession. I had the privilege of having men like Dr. Richmond and Dr. Aud and Dr. Griffith, Dr. Cecil, the great men of the profession, assemble in our home and in their homes day after day while this structure was being erected. It has been so well built that it has made steady progress during all these years, such progress that we really are unconscious of it, because you know when your wife gets your breakfast for you and serves it to you on your lap in bed, as mine does, and when she pets you and finds all the things that you lose and everything runs perfectly smoothly, you very frequently, too frequently, forget to say to her that she is the greatest woman in the world and getting better looking every day and is finer every day; we frequently forget to say to ourselves that we have built the best medical organization in existence. We are the envy of other states. There is no other state that wouldn't swap with us today. It is not an accident that the greatest of our physicians in Kentucky is today the greatest man in American medicine; it is not an accident that Dr. Abell, (applause) who for twenty

seven years has been the Chairman of our Committee on Public Relations, has been able to interpret the dreams, the thoughts, the aspirations, the determined program of American medicine in a way that no other man has ever been able to do; it is not an accident that the President of the United States has selected from Kentucky the man who will be the medical coordinator in this great emergency and will make all of the arrangements that will solve all the complications that will arise in regard to all these relationships, and will help to determine how and where we shall serve should the emergency become actual war; it is because he is blood of your blood, warp of your warp and woof of your woof; he is merely expressing vocally the things that you have been learning to know and practice all this time. It is not a mere accident that one of our members, honored by us because he has worked hard in our House of Delegates and in our Association, has become not only a Trustee of the American Medical Association, but a member of its Executive Committee and of its Finance Committee, the most powerful group in American medicine, that has more to do with the determination of its destiny than any other. These things have happened because we are organized as we are and because of the simplicity of that organization.

I can never tell just exactly how many more times I am going to talk to you or to occupy this position on this rostrum—as a private or as a public servant as long as I can talk at all I am sure, but I can't tell how many times I am going to talk to you in the future, and I want to say this to you with all the solemnity of this occasion: Did I know this was the last time I would appear before you, there is but one way for medicine in Kentucky to proceed and that is to continue the intimate, simple, effective organization that has already been found to comport both with our dignity and with our individuality in this state. We don't belong to the type that can ever be driven anywhere: our plan works for our sort of folks. There are always experts. I think of an experience I had when I was driving my first automobile. There weren't many chauffeurs or mechanics or garage men in those days, and we had to do most of it ourselves. I found my car was running very roughly one day, and I stopped in front of a blacksmith shop that had a sign over it, "Automobiles Repaired Here," and asked the man who came to the door what was the matter. I hadn't had much experience with a car. Dr. Blackburn will remember the rather awkward

looking, noisy thing I was driving. The fellow said, "There's something the matter with your timer. I'm hell on timers and I'll get that fixed." He jacked up a lot of things and finally got to what he said was the timer, and just about the time he got to it and before he had time to do anything to it, I walked around back of the car and found I had a flat tire. I got him to put the thing back just as it was, with the covers and things on it, and we repaired the tire and I went sailing on perfectly smoothly. There are those mechanics in medicine who can find things wrong with the timer and who will very frequently fail to find the flat tire. It is important that we in our thoughtful, always critical, always considerate attitude toward ourselves and toward everyone else, carefully weigh and consider the suggestions that are made, accept those which are true, and discard those which are false, and continue to march onward and upward toward the high goal that we know we will attain, because in Kentucky we have the simple faith and we know perfectly definitely that the Great Physician is the Master of our profession, and we know that when we carry a cup of water to those that are athirst, a crust of bread to those that are ahungered, in His name, we are doing what He did when He was on earth, and as we go on from today with this great organization spreading its benevolent influence into every home in the Commonwealth, we are building a Christian civilization in which we are ministers as if we were ordained, where we wear robes that are placed upon us that may be invisible to others but we know they are there, and being conscious of them we shall continue to hold erect the banners of medicine and to fight its battles that it may be the independent, the faithful, the honorable servant of mankind that we are determined it shall be. (Applause)

PRESIDENT SCOTT: If there is no discussion or comment, the report of the Secretary will be accepted. I think we will all agree that if there is anything at all the matter with Dr. McCormack it is with his timer and not as a flat tire. (Laughter)

The next in order of business is the report of the Councilors by Districts.

FIRST DISTRICT

V. A. STILLEY, Benton: I don't think there is any thing wrong with my timer, Dr. Scott, because this is going to be short. I am, of course, very sorry indeed to report that we have lost four of the most prominent physicians in the first Councilor District. They were leaders in the profession and we miss them, but I am indeed

happy to report that we have an increased membership of the entire District as of September 1 when the report was made out and handed to the Auditor, showing a net gain of two.

So far as meetings of the medical societies are concerned, we have the Southwestern Kentucky Medical Association which meets four times a year. We meet annually at Paducah and then we meet around over the District. These meetings are well attended. We have county societies and we have sub-district societies. About three of the counties compose one sub-district, as we call it; others have four. These meetings are well attended, too. So far as the interest in the organization is concerned, I think it is as good or better than we have had at any time heretofore.

I cannot pass on without saying something about the Woman's Auxiliary. It has been my experience, and I think it is the experience of a good many men in the counties whom I have had the honor of trying to serve for a good many years, that when you have an active medical society and an active Woman's Auxiliary you have more interest in the society, more interest on the part of the profession, you attend more regularly, there is better spirit, a better feeling at all times, and I believe if you can get a Woman's Auxiliary organized in every county in your District your attendance and your interest will improve a lot. It has done so with us.

It is always a pleasure to me, of course, to represent the First District. While we have losses, we still carry on. (Applause)

SECOND DISTRICT

D. M. GRIFFITH, Owensboro: Mr. President, I am very pleased to report a most satisfactory condition in the Second District. We have an increase of seventeen paid members for the year and an increase in membership in every county in the District except one. I am glad to say that we have a better personal and professional feeling among the doctors of Kentucky in the Second District than I have ever observed in my long tenure of my office as Councilor. I attribute it largely to the county medical societies. I believe all the hard feelings that have existed among doctors over the years have been because of lack of contact between the doctors. When they come together in county meetings they rub elbows and they have a feeling of companionship that does not exist if they do not have those meetings. That is the side of medicine which is not always considered along with the side of gaining medical knowledge from the papers which are given.

I have served this body as Councilor for a great many years, and it has been a pleasure. My contact with the doctors has always been highly gratifying to me and I hope to them. (Applause)

THIRD DISTRICT

C. C. TURNER, Glasgow: The Third Councilor District is composed of twelve counties, with a total population of 212,436; it has 156 active physicians, 126 members, and 30 non-members. There are 170 hospital beds, not including Western State, and no citizen lives more than forty miles from a hospital. Monthly meetings are held in most of the counties. During the past year the Councilor has taken part in programs in each of the counties where meeting were held. In July, a barbecue and an informal program was given at Hopkinsville in honor of our President-Elect, Dr. Austin Bell, and was largely attended and a general good time was had by all.

The Third District Society meets every other month at Bowling Green. The program is furnished by speakers outside the District, usually from Louisville or Nashville. All meetings are well attended and a splendid fellowship exists among our doctors.

The platform of the A. M. A. is unanimously endorsed. (Applause)

FOURTH DISTRICT

J. I. GREENWELL, New Haven: I have no special report to make of the Fourth District this time, as it is about the same as last year, only it shows an increase of paid-up members over last year, also more of the counties have organized this year than in any previous year. I think this accounts for the increase in members.

Most of the counties have regular organized medical societies. Some meet each month with a good program at each meeting. Others meet only once or twice each year. Meade, Larue, and Spencer do not have any organized society. It seems to be impossible to get the above-named counties to organize and to stay organized. I guess, it is because there are only three or four doctors in each county and they live in different parts of the county and it is hard to get them together for a meeting.

Most of the doctors in the Fourth District have filled out the questionnaires on medical preparedness and sent them in. I hope by the time this meeting is over we will be something near a hundred per cent. (Applause)

FIFTH DISTRICT

J. B. LUKINS, Louisville: Mr. President, the Fifth Councilor District is composed of nine counties, including Jefferson, the

largest county society in the state.

In December, 1939, in cooperation with Dr. Vance and the members of the Tenth District, we had a first-class meeting at Frankfort. We had present at that meeting the President of the American Medical Association, the President-Elect of the Southern Medical Association, and the Editor of the JOURNAL of the American Medical Association, Dr. Morris Fishbein. These three distinguished gentlemen were one of us and took part in the discussion. A large part of the credit for the success of this meeting should go to the members of the Franklin County Medical Society and their able secretary, Dr. Grace Snyder.

We have this year in the Fifth District 489 members. There are in the District 243 doctors who are not members of any county medical society.

For the first time this year, each county in the District has some semblance of an organization. Three of the counties, Carroll, Gallatin, and Trimble, have a tri-county society.

About six members of the Shelby County Society live in another county. The Shelby County Society is very active and doing splendid work.

Jefferson County will speak for itself. (Applause)

SIXTH DISTRICT

W. B. ATKINSON, Campbellsville: Mr. President, the Sixth Councilor District is composed of eight counties, each of which supports an organized county society. Meetings are fairly regular in three counties, Boyle, Mercer and Taylor. The others have meetings when the occasion demands. Interest, however, has not lagged, as is evident from two trends. The membership of the District has increased over that of the last several years, and the number of younger men who have begun practice in the District within the past few years is more than fifteen.

The programs for the District meetings have been of uniformly high caliber and have paid dividends in increased interest and attendance at these meetings. This is particularly true of the essays delivered by the members chosen from the District for the District programs.

Our number is growing. Our ethical standing is improving, and I trust our ability and accomplishments are waxing. Certainly no Councilor has received more hearty cooperation from the individual physicians whom he serves than have I. (Applause)

EIGHTH DISTRICT

SECRETARY McCORMACK: Dr. Luther Bach, Councilor, is sick, This is his report:

Mr. President and Members of the House of Delegates: I regret the fact that I am compelled to send my report and for the first time in several years miss the one meeting which has given me more pleasure to attend than all others, the Kentucky State Medical Association.

It is a great pleasure to me to be able to report that the eleven counties in my District are all organized with active medical societies, with one exception, Robertson, which has only two members.

A recent report shows that in the eleven counties we have 194 paid members, as follows:

Boone	6
Bracken-Pendleton	11
Campbell-Kenton	116
Fleming	10
Grant	12
Harrison	13
Mason	16
Nicholas	6
Robertson	8
Total	194

No doubt others have been added since this report.

It has been my privilege to visit several of these county meetings which were well attended and had splendid scientific programs.

The Licking Valley Medical Society is our District society which meets every three months, is well attended, and meets in different counties in the District. The programs are all scientific, and during the past year have been very interesting, with some of the leading men from Louisville, Cincinnati, as well as local men, on these programs.

There apparently has been a great improvement in the medical field in this District within the past few years and we anticipate even more progress from year to year. (Applause)

NINTH DISTRICT

SECRETARY McCORMACK: Dr. Proctor Sparks, Councilor, is not here. Dr. Smith has his report.

I want to add that we have 100 more members in the State Medical Association than we have had at any time since 1903. At that time we had 4,000 doctors in the state, and now we have 2,700, of whom 500 are either in the Army, Navy, or Public Health Service, or in official positions; we have about 2,280 doctors in active practice, and of them, a few more than 1900 are members of this Association. (Applause)

S. C. SMITH, Ashland: It is with sincere

regret on my part and Dr. Sparks' that he is unable to be here, due to the serious illness of his wife. Several days ago she had a coronary thrombosis and he called me Saturday morning and said she had another attack, was in great shock, and he was very uneasy about her.

I have his report:

"I have the honor to submit herewith the following report of the Ninth Councilor District. The Ninth District has 118 paid-up members this year. The county society register is as follows: Boyd, 37; Carter, 8; Elliott, 0; Greenup, 9; Johnson, 13; Lawrence, 9; Lewis, 2; Magoffin, 1; Martin, 1; Pike, 24." For some reason or other he left out Floyd County. I would like to ask Dr. John Archer to rise in defense of Floyd County. I worked hard to get into the society all of the eligible doctors, with some success, but more work and harder work is to be done.

"Our District meeting held at Paintsville was the best meeting I ever attended, seventy-seven doctors being present. Papers were read by Drs. Irvin Abell, W. W. Nicholson, A. T. McCormack of Louisville; Ray M. Bobbitt, and Edwin J. Humphrey of Huntington, West Virginia; J. M. Emmett, of Clifton Forge, Virginia. We had a very enthusiastic meeting at Louisa, but poorly attended. Papers were presented by Drs. John W. Scott and Douglas E. Scott of Lexington, Kentucky; Drs. Philip F. Barbour, James Stites, A. T. McCormack and E. L. Henderson, of Louisville, and Dr. R. J. Wilkinson of Huntington, West Virginia. Many favorable comments were heard on the excellency of both programs and on the spirit of the meetings.

"It is my utmost desire to accomplish the purposes of our Association.

"Proctor Sparks, Councilor."

TENTH DISTRICT

C. A. VANCE, Lexington: I have the honor to submit herewith the following report of the Tenth Councilor District.

The Tenth District has 269 paid-up members this year. This is the largest paid-up membership we have ever had in this district. The county society register is as follows:

County	Membership
Bath	6
Bourbon	15
Breathitt	4
Clark	17
Estill	7
Fayette	127
Jessamine	10
Lee	2
Madison	21

Menifee	1
Montgomery	10
Morgan	4
Owsley	1
Powell	2
Rowan	6
Scott	14
Wolfe	4
Woodford	8

Total269

There are approximately fifty-two non-members in the District. Every effort has been made to get into the society all of the eligible doctors, and some success has attended our efforts this year. The list of non-members is less than it has ever been.

Bath, Estill Jessamine, Lee, Menifee, Morgan, Owsley, Rowan, Powell, Wolfe and Woodford counties hold occasional meetings.

Bourbon, Breathitt, Clark, Fayette, Madison, and Montgomery counties have held regular meetings this year, and these have been well attended and their programs were instructive.

Breathitt, Estill and Powell counties have all the doctors in their counties as members of their societies.

The Tenth District has suffered by death the loss of the following doctors since the last meeting of the Association: Dr. Richard Allen, Winchester, Kentucky; Dr. G. N. Center, Campton, Kentucky; Dr. L. J. Godbey, Lexington, Kentucky, and Dr. C. T. Jones, Salt Lick, Kentucky. Last year the District lost six members by death; this year this loss is only four. All of these men were active in their county societies and were highly respected by their associates in practice and by their communities. All of them will be greatly missed.

The summer district meeting which is usually held in Lexington, or nearby, in May, was not held this year. The annual dinner meeting of the Fayette County Medical Society and the dinner meeting and the Clinico-Pathological Conference of the Good Samaritan Hospital were held in May and the physicians in the Blue Grass and nearby towns attended these meetings, and we were expecting the State Medical Association meeting here in September, so it seemed best not to have a Councilor District meeting this summer. Of course, we are planning to have one the latter part of this year or in the spring of 1941. Our Councilor District has no organization, and the meetings are entirely social and scientific. I believe these meetings are impor-

tant and should be held occasionally.

In all of my reports to you as Councilor of the Tenth District, and this is my fifteenth, I have spoken of the importance of the county society. The State Association could not exist if interest were lost in the county society, so let me again and again urge you to keep up your county society as the most important unit of organized medicine. (Applause)

ELEVENTH DISTRICT

H. K. BUTTERMORE, Liggett: During the past year, the county societies of the Eleventh District have shown an increased interest in attendance and membership. The various county societies have had several clinics, in addition to the regular county society meetings. These clinics are attended by most of the doctors, and a large number of patients are seen by the various specialists. The doctors have advised me they endorse these clinics and more of them should be held.

The membership in the Eleventh District increased about fourteen per cent over last year. Our county societies are trying to elect as secretaries, alert doctors who will prepare good programs, using both local talent and doctors from other counties and other parts of the state. (Applause)

PRESIDENT SCOTT: I will ask the Secretary to read a communication from Dr. Abell.

SECRETARY McCORMACK: On last Saturday, Dr. Abell was taken ill with an acute sinus and was compelled to go immediately by plane to Southern Florida. He sent his reports to be read, but he has sent this telegram, which the President instructs me to read, from Boca Grande, Florida:

"Am distressed that I am unable to attend the meeting. The Bluegrass never fails to provide a wonderful setting and the Association responds with a splendid program. My congratulations to the Association on its splendid contribution to the military preparedness program.

(Signed) Irvin Abell." (Applause)

Mr. President, I move you that the President and Secretary be instructed to send a telegram to Dr. Abell expressing hope for his early recovery and our affection for him.

The motion was seconded and unanimously carried.

SECRETARY McCORMACK: I have a communication from Mrs. Betsey Madison Rhoads, a descendant of President Madison, who is now the State President of the Kentucky Federation of Women's Clubs.

Lexington, Kentucky
September 16, 1940

The House of Delegates,
Kentucky State Medical Association,
Gentlemen:

Representing the Kentucky Federation of Women's Clubs, I wish, through you, to express to Dr. Irvin Abell our great satisfaction in the recent appointment of him as Chairman of the American Medical Association's Committee on Medical Defense, and to offer to him whatever facilities our organization has and whatever help it can render him.

(Signed) Betsey Madison Rhoads,
President.

I move this communication be received and that Mrs. Rhoads be informed of our appreciation of their cooperation and our assurance that we will accept.

The motion was seconded and carried.

PRESIDENT SCOTT: Next is Reports of Delegates by Counties.

BARREN COUNTY

PAUL S. YORK, Glasgow: Mr. President, for the second time Barren County wishes to report that all qualified members of the profession in active practice are paid-up members of the county medical society. This society meets in scientific session monthly ten months out of the year and has an annual meeting in December at which the officers are elected, usually a banquet. There are no special problems in our county and everything seems to be peaceful.

BELL COUNTY

U. G. BRUMMETT, Middlesboro: The Bell County Society holds its meetings monthly on the second Friday night of each month. The meeting place is in Middlesboro and Pineville, alternating.

We have thirty-seven registered doctors in the county, twenty-six of whom are members of the Bell County Medical Society.

Dr. A. W. Cowan is President, Dr. Edward Wilson is Secretary.

BOURBON COUNTY

SECRETARY McCORMACK: As Dr. Orr comes forward, I would like to say to you that he is one of the youngest members of the profession in Kentucky.

JAMES A. ORR, Paris: I wasn't going to come up front, but after that remark I'm coming up where you can see me.

Bourbon County has nothing of specific interest or importance to report. We meet regularly and have practically all of our active doctors as members of the society. up members of the county medical society.

in regard to preparedness. We meet monthly, have good programs, and everything is going along well.

BOYD COUNTY

S. C. SMITH, Ashland: Boyd County has thirty-seven active paid-up members, and there are nine eligible who are not paid up. Some of these are retired, and I don't know why some of the others don't belong. We have three listed as retired; one of them is now dead. We have lost three doctors since the last meeting, Dr. J. A. Sparks, Dr. J. C. Gambill, and Dr. H. C. Osborne. They all died within the past twelve months.

Boyd County has regular meetings monthly with the exception of June, July and August. The meetings are well attended, and there is always a great deal of interest in the proceedings. We have more than fifty per cent of our physicians responding to the questionnaire, according to the check list that I have here. Some of the men who did not respond felt it was not necessary, as Dr. McCormack said, because they were past the age. On the questionnaire I received they asked if I would volunteer, and I said no because I thought I was past the age where volunteers would be accepted, but I am just as willing to go as I was in 1917 if I can be of any service, and I think the majority of our men who are physically able in Boyd County feel likewise, because you will find no more patriotic bunch anywhere than they are; they are a bunch of fine fellows, but they are very inquisitive fellows. For instance, they can't understand why it is that we are constantly trying to raise the standards of physicians in the State of Kentucky, even going to the extent of preparing to license specialists, when we have osteopaths and chiropractors who are practicing medicine in a subversive way, the osteopath prescribing and even doing obstetrics in some cases, and we have physiotherapists who diagnose nearly everything in the world and try to treat it. These fellows are just a little inquisitive about that, and I am sure those of you who have a similar experience in your own localities are also inquisitive and wonder why it is worth while to raise the standards of physicians when men who are spine pushers and bone crushers come in and make just about as much money as they do.

BOYLE COUNTY

P. C. SANDERS, Danville: Boyle County has regularly elected a delegate to this convention, who happens at this time to be the President of the Boyle County Society, who had a detailed report to make

to you, but he called me today at eleven o'clock and told me it was impossible for him to come. I being the Secretary and Dr. Caldwell's alternate, felt that we lived just a little too close to Lexington not to have somebody to answer when Boyle County was called, so I left at 12:30 and am here.

Boyle County has seventeen members. We have had three new members in the last year, one of them moving out, and only one practitioner in the county doesn't belong to the society. For seventeen years we have been meeting nine months of the year. We do not meet in July, August, or September. For part of that time we didn't know we had a Councilor in the District, but for the last few years we have known we have a Councilor in the person of Dr. Atkinson of Campbellsville. He calls me regularly over the telephone and writes me and visits our meetings, and he is a real inspiration to us and we are having some great meetings every month in the year except the ones I have told you about.

BREATHITT COUNTY

FRANK K. SEWELL: Breathitt County wishes to report that all qualified physicians in the county are members of the society. It also gives me great pleasure to report that Breathitt County, the only county in the United States in which the draft law was not operative during the World War, has filled out its medical preparedness questionnaire 100 per cent.

PRESIDENT SCOTT: It gives me great pleasure to recognize and introduce to you the oldest living ex-President of the Kentucky State Medical Association, Dr. Frank H. Clarke. (Applause)

CALLOWAY COUNTY

J. A. OUTLAND, Murray: Since our meeting in 1939 we have lost two of our aged retired physicians by death, Dr. J. R. Phillips, of Almo, and Dr. T. J. Henslee, of Murray. We have fifteen doctors eligible for membership in the county and we have fifteen paid-up members. We have our regular meeting dates, but sometimes we don't meet regularly. We have good cooperation among the medical profession.

CARLISLE COUNTY

J. F. HARRELL, Bardwell: There is nothing special to report from Carlisle county. Owing to the fact that the majority of counties in the Jackson Purchase are small and the towns near each other, Ballard, Carlisle and Hickman counties hold their meetings jointly.

The doctors have all complied with the request from the A. M. A. to fill out and send in the questionnaires pertaining to the national defense program. Every doctor

belongs to the county medical society, all are in good standing and have paid their dues for this year.

CARTER COUNTY

J. W. STOVALL, Grayson: Eleven members, eight paid up. We have a monthly meeting, all interested, and talk about everybody to their nextdoor neighbors.

CHRISTIAN COUNTY

D. M. CLARDY, Hopkinsville: Christian County has enjoyed another successful year. We have one more member than last year, which makes thirty-four this year, and two associate members. Christian County has the honor of offering you and is proud to offer you the President-Elect, Dr. Austin Bell, of Hopkinsville. (Applause).

CUMBERLAND COUNTY

SECRETARY McCORMACK: Dr. Owsley is a descendant of governors and has all the eloquence of all of them.

W. FAYETTE OWSLEY, Burkesville: We have five doctors in Cumberland County, and all of them are members of the society, paid-up members, and as far as I know all are in good standing and they all filled out and mailed in their questionnaires.

DAVIESS COUNTY

W. L. TYLER, Owensboro: Daviess County has in its membership all of the men who are eligible in the profession in the entire county. Only one man dropped out of the Daviess County Medical Society in the last few years, and he isolated himself by virtue of the fact that he didn't pay his dues. I think this is largely due to the fact that the Councilor of the Second District lives in the town of Owensboro, which is the seat of Daviess County.

With respect to the activities of the Daviess County Medical Society in the last year, some younger members of the profession were thoughtful enough and appreciative enough of the elder members of the county society and of the profession to plan a meeting last November in honor of the men who had practiced medicine for fifty years—I hate to say it because one of the members is present. When that was announced all over the state there was hardly a hotel room in Owensboro to furnish accommodations for the guests that we had at that particular meeting. It was one of the happiest and most congenial meetings, I think, and was greatly appreciated by the profession. Some of us are getting a little older and heads are growing gray, but several of us have sons and sons-in-law or relatives or friends who are filling up the gaps as the old fellows drop out.

A Negro friend of mine who is a doctor

in Owensboro I introduced to a son of mine who was a recent graduate, and I said to the Negro doctor, "He's a better doctor than I am." In that philosophy that the colored race has always, he hung his head and said, "Well, Doc, there hain't no use in bringin' out the second edition unless you make some improvement." (Laughter). So it is that the elder men in Daviess County feel that when the Lord calls us above—that is the only place He calls anybody from Daviess County—our footsteps will be filled by men who are well qualified.

Our meetings are twice a month, and about every month we have a guest speaker from out of the county. I am glad to say that we fill these appointments largely from men from Lexington and Louisville and elsewhere in the state. We meet nine months in the year, every two weeks, and also a big per cent of the active members of the profession are members of the staff on the City Hospital, and it is the custom at a meeting of the staff that they notify all of the members of the medical profession, and whether they are members of the staff or not they nearly all attend and get some benefit from it.

This year we will have completed by the first of the year, an addition to our hospital, and we will have about a 130 or 140 bed hospital there, which is in addition to our other hospital, which will be known not only as a city institution, but the county itself has helped to bear part of the expense of building this institution, which will be a credit to the county, the city, and to the state.

Another thing that has taken place in Daviess County in the last year, through the influence, I suppose of the medical profession, has been the recent organization of an all-time county health department, and in a few weeks we will have an all-time county health officer there, with whom the medical profession will be glad to cooperate, to be of whatever benefit he can to the citizenship of our county and the State of Kentucky.

FAYETTE COUNTY

ERNEST B. BRADLEY, Lexington: Mr. President, I have no formal report to make for Fayette County. I would say that we have regular meetings once a month of the Fayette County Medical Society, and then twice a month a clinico-pathological conference at each of the hospitals at which practically all of the active members in Fayette County are present. I am told that Fayette County has 127 active members now, which is more than we have ever had before. Practically all members in

Fayette County who are eligible to membership are members of the Fayette County Medical Society, except that there are quite a few physicians at the United States Public Health Service Hospital and at the Veterans' Hospital who have not taken out their membership in the society. Some of them have, but some of them haven't.

I would like to say, too, that we have a full-time health department here in Lexington and Fayette County which is a consolidated Health Department, and during the past year the city and Fayette County have built us a new building at which Dr. Cawood, our health officer, will be glad to welcome all of the members of the Kentucky State Medical Association who wish to visit it. He asked me to extend that invitation, and I know he will be glad if you will come up and see our new building; we are very proud of it.

I will say also that all of the 127 members of the Fayette County Medical Society are delighted to welcome the Kentucky State Medical Association here at Lexington. (Applause)

FLEMING COUNTY

BEN F. ALLEN: There are twelve physicians in the county who are engaged in the practice of medicine, all of whom are members of the society except two.

The society has as its date of meeting the second Wednesday of each month, but on several occasions there were not enough members to make a quorum. On occasions when several members were present, the discussions were quite lively and interesting.

There is a close cooperation between the society and the health department; each renders a valuable service to the other.

Some of the most important phases of work sponsored by the medical profession are:

- (1) Sending venereal disease patients to the health department for treatment.
- (2) Sponsoring the x-ray clinic for the control of tuberculosis.
- (3) Assisting the health department in getting patients for the tonsil clinic.

John R. Cummings, President
Roy Orsburn, Secretary.

FRANKLIN COUNTY

F. M. TRAVIS: The Franklin County Medical Society has held nine regular meetings since our last state meeting, the society having adjourned for the three summer months.

The society lost by death two of its oldest and most distinguished members, Dr. E. C. Roemele and Dr. John Glover South, and added to its membership Dr. L. V.

Jones, of Gratz, Kentucky, and transferred to the Fayette County Society Dr. J. G. Wilson, which left its membership twenty-one physicians.

The Franklin County Medical Society had as its outstanding guest speaker for the year, Dr. Morris Fishbein. For this occasion the Fifth Councilor District of the state and the Forum Club of Frankfort, Kentucky, were invited to hold joint meetings, so that a record crowd of both physicians and laity had the opportunity of hearing Dr. Fishbein's paper on socialized medicine.

Other physicians who honored the society with visits and papers this year were Dr. Lewis Bosworth, Dr. William T. Briggs, Dr. Caroline Scott, and Dr. William Maxton, of Lexington, Dr. Henry N. Rubel, Dr. Franklin Jelsma, and Dr. Maurice Buckles of Louisville, Kentucky.

I would like to add that we have only one doctor in the county who is not a member of our society.

GRANT COUNTY

RUSSELL E. KINNEY, Williamstown: The Grant County Medical Society submits the following report for the year 1939 and 1940.

Twelve meetings were held during the past year. A number of these were held in the various doctors' homes, with splendid results as to attendance, programs, sociability and refreshments.

The annual banquet was held at the Hotel Donald in Williamstown in December. The doctors, accompanied by their wives, enjoyed a gala occasion. Our Councilor, Dr. Luther Bach, of Newport, accompanied by Mrs. Bach, honored us with his presence.

The society and the Women's Club of Williamstown sponsored a lecture at the Grant County Courthouse in April on cancer. Dr. Jesshill Love of Louisville gave an excellent talk and showed films to a mixed audience on the subject.

The Grant County Society was host to the Licking Valley Medical Society in June in the Williamstown School Auditorium. A large number of the doctors enjoyed an interesting and instructive program by Dr. Frank Stephenson of Cincinnati and Drs. Philip Barbour, S. S. Gordon and Martin Harris of Louisville.

Grant County has twelve active doctors. Again one hundred per cent of them belong to the county and state societies. We are pleased to announce that during the past year two new and young physicians, each of a high type and well trained, have joined our society.

We feel we have had very instructive

and interesting meetings throughout the year and are very thankful to our doctor friends from surrounding cities who have come to us at different times to give us a real post-graduate course at home.

GRAVES COUNTY

H. H. HUNT, Mayfield: The Graves County Medical Society is composed of twenty-two members, which includes every active physician in Graves County. We meet on the second Tuesday of every month with good attendance.

At one of our meetings in July, Dr. Philip F. Barbour, Consultant in Pediatrics, gave us a talk on diarrhea in children, which was enjoyed and appreciated by all doctors present. There were about forty doctors present at this meeting.

We have had the misfortune during the year of 1940 of losing two of our most prominent physicians, Dr. A. R. Higdon, Fancy Farm, born March 25, 1879, and died May 12, 1940, and Dr. J. F. Kirksey, Mayfield, born August 10, 1875, and died July 25, 1940.

The members of our society show great interest in attendance, and we are members of the Southwestern Kentucky Medical Association which meets four times a year.

On August 1, 1939, Graves County inaugurated the County Health Department for the first time in the history of the county. This department consists of a health officer, two nurses, sanitary inspector, and clerk. The cooperation of the Graves County Medical Society with this program has been excellent.

We have two new members, Dr. Steele Robbins and Dr. Robert Orr.

HARDIN COUNTY

S. G. BALE, Elizabethtown: I am sorry to report that since the last annual meeting of this Association Hardin County has lost one of its most lovable and most humanitarian doctors, namely, Dr. R. T. Layman. Hardin County also suffered the loss of Dr. William Allen Pusey, who, although not an active member, resided in Chicago most of the time but was a native of Elizabethtown and maintained a home there too. Hardin County has a membership of twenty, all paid-up, and we hold regular monthly meetings except for the months of April, December and August, at which time the Muldraugh Hill Medical Society meets there, and I might say that since the expansion of Fort Knox has taken such a boom we have a number of doctors living in Elizabethtown, but not members of the Hardin County Medical Society. We are pleased to report that we have the honor of having the President of

the Woman's Auxiliary, the state organization, namely, Mrs. R. T. Layman, wife of the deceased Dr. Layman. Hardin County wishes to go on record as being strongly opposed to any dictatorial influence in the practice of medicine.

HARLAN COUNTY

CLARK BAILEY, Harlan: Harlan County has fifty-two doctors, forty-four paid-up members and four whose application for membership is in the hands of the Membership Committee.

We have monthly meetings except in July and August of each year, with the program usually highlighted by some guest speaker. We have had no deaths during the last year, but we wish to call attention of the House of Delegates to the retirement from the Harlan County Medical Society of one of the Past Presidents of the State Medical Association, Dr. W. H. Martin.

HARRISON COUNTY

J. P. WYLES, Cynthiana: During the past year the Harrison County Medical Society held twelve meetings, with an average attendance of ten and a half, ranging from four to twenty-seven, which was the largest attendance. Twelve papers were read, four of them from visiting doctors. Seventeen clinical cases were reported and discussed by the members of the medical society.

Our present membership is fourteen, a gain of one member this year, one member having transferred from Pike County.

Harrison County has just established a public health unit, which we are very proud to get, and which will have the cooperation of the medical profession. Every practicing physician of Harrison County is a member of the society. The former members of the society have retired because of the infirmities of age and are no longer engaged in active practice.

HART COUNTY

D. E. UPTON, Munfordville: Unfortunately the Hart County Society has not been functioning, up until last month. We all got together and had a renewed pledge from everyone to keep it going.

HENDERSON COUNTY

E. M. SIGLER: I am sorry to report that Henderson County has only nineteen physicians, of which fifteen are active. The other four are active. It seems that we have some difficulty in having regular meetings. One reason is because of the fourteen doctors who are active. It is a small crowd and we can't get them all there. For some reason or another everybody seems to get awfully busy about the

time there is a meeting, and there are many excuses—a child who doesn't want to go to bed—they can think of every reason in the world, but we do have the privilege of attending the Vanderburg County Society of Indiana at Evansville. They have a very active society and they really do have some good programs. Our best means of having a good attendance is to have a chitlin' supper, and with the winter coming on, and cool weather now, chitlin's are going to be in order and I am sure that we are going to have some good meetings through the winter.

HENRY COUNTY

O. P. CHAPMAN, Port Royal: We got slowed down last spring and have reorganized, and we have lost two of our doctors in the last year, and have been having meetings on Monday, and will have from now on.

JEFFERSON COUNTY

JAMES R. STITES, Louisville: The Jefferson County Medical Society has 438 members in good standing and 18 delinquent members. At last year's meeting, held at Bowling Green, September 11-14, we reported 433 members in good standing and 24 delinquent members. One hundred and fifty-six members are using our Physicians' Exchange service.

We have had ten regular meetings since January 1, with two out-of-town speakers. On March 18, we had Dr. E. C. Hamblen, of Duke University, Durham, North Carolina, and on June 17, Dr. Irving J. Wolman, of Philadelphia, Pennsylvania. The average attendance for these ten meetings was 106.

On May 20, members of our county were guests of the Southern Medical Association at a dinner meeting held at the Pendennis Club; 227 members and guests were present. Various officers of the Southern Medical Association were in attendance and five-minute addresses were made by each of them.

JOHNSON COUNTY

E. W. KISSEL, Paintsville: Johnson County has fourteen members, thirteen of whom are paid up and the other is an application which has been received and turned over to the medico-legal department. Through the efforts of our Councilor, Dr. Sparks, the society has now gotten together and is meeting regularly every month. This has been since January, and I also wish to go on record as saying that the efforts of Dr. Sloane and Dr. Shepard have been instrumental in bringing this about.

Johnson County was host to the Eastern

Kentucky Medical Society District meeting, at which there were seventy-seven members who attended, and all who did attend feel that they had an excellent meeting.

LINCOLN COUNTY

M. M. PHILLIPS, Crab Orchard: The Lincoln County Medical Society meets fairly regularly. We have 100 per cent membership of those who are actively engaged in the practice of medicine. We have a full-time health unit, of which we are very proud. They work in perfect harmony with the medical profession. We have two or three on the retired list. Included in this list is one Past State President, Dr. Carpenter, who is eighty-five years of age and enjoying fairly good health at this time. I am sure he would like to be here with us.

LIVINGSTON COUNTY

C. M. FISCHBACH, Smithland: Livingston County has six practicing physicians, all of whom are members of the Livingston County Society. Up to January of this year our society met every two months. At that time we had a dinner meeting at which our Councilor, Dr. Stilley, and Mrs. Stilley were present and made talks. It was then decided that we would meet every month, which we have done ever since. Through the past year we have lost one of our most faithful and beloved physicians, Dr. John L. Hayden, of Salem, and I know he has been missed.

LOGAN COUNTY

WILLIAM F. LAMB, Russellville: Logan County has fifteen members, two non-members, one not practicing, and one colored physician. Fourteen of these members have returned their medical questionnaire. One member has not. Of the non-members, one has returned the questionnaire. We have met quarterly since the last meeting.

MASON COUNTY

O. M. GOODLOE, Maysville: Mason County Medical Society reports all eligible physicians are members, a total of seventeen. There is one colored physician non-member, and all the Mason County physicians have filled in their questionnaires from the American Medical Association. We have regular monthly meetings, and for the most part we have outside talent from Cincinnati, since they are our nearest medical center.

MCCRACKEN COUNTY

FRANK BOYD, Paducah: McCracken County has a membership of thirty-nine, thirty-eight paid, one delinquent. We have four colored physicians, and our share of

chiropractors and osteopaths. McCracken County Medical Society meets monthly and it is always a dinner meeting. The attendance is fair; from a third to a half, I presume would be the average for attendance. McCracken County also is host to the Southwestern Kentucky Medical Association annually, which brings together from seventy-five to as many as a hundred physicians from the district down there, and we have a very fine meeting in that way. We also have two staff meetings monthly, one at each hospital, and all the physicians belonging to the county society, practically, are on one staff or the other, and they have the advantage of a good attendance at those staff meetings where hospital cases are discussed and cases reported.

I am not aware of the number of men who have answered the questionnaire sent out at Dr. Abell's request. I don't know what proportion have been filled in. I presume, however, that a large percentage have been filled and all who have not filled them will do so.

MENIFEE COUNTY

(E. T. Riley, Frenchburg, arose as Dr. McCormack made the following remarks:)

SECRETARY MCCORMACK: Menifee County is the most unanimous county society in the state. They have one member who holds all the offices and is in continuous session throughout the year.

NELSON COUNTY

W. KEITH CRUME, Bardstown: Nelson County has held two regular meetings in the last twelve months.

We have eleven doctors in the county, eight of whom are members of the medical society and paid-up members. Out of the eleven, ten were contacted and have returned the questionnaire.

OWEN COUNTY

E. S. MCBEE, Owenton: Mr. President, Owen County has six physicians, three members of the society, three not. All members have filled out their questionnaires, and we meet monthly with the Northern District because of the lack of members.

PIKE COUNTY

M. D. FLANARY, Pikeville: Pike County meets regularly every month except in the three summer months. We have twenty-three active doctors and twenty-four paid-up members.

PULASKI COUNTY

CARL NORFLEET, Somerset: I have here the report of our Secretary, M. C. Spradlin. The Pulaski County Medical Society has

a paid membership at this time of twenty members, and includes in its membership all of the physicians in the county with the exception of four physicians who are practically inactive.

The activity of unlicensed practitioners of medicine in Pulaski County has now diminished to the extent that it is practically negligible. This has been due in part to our efforts to educate the general public and to improvement in communication facilities in the county.

The society has held a number of meetings during the year which were well attended. It has been the custom for many years for the society to act as host each fall to a joint meeting of the Sixth and Seventh Councilor Districts, and we are planning another such meeting this fall. These meetings are ordinarily fairly well attended.

A check of the membership of the society reveals that approximately seventy per cent of the physicians in Pulaski County have returned the medical preparedness questionnaires.

I wish to add to this report that we have three chiropractors in Pulaski County, one of whom came to us the other day and reported another brother chiropractor was practicing medicine as well as his own cult. I told him, "That's your headache. You have your board appointed for your men. We will ignore this activity. If it is infringing on your ethics, go to it." I also suggested to our county secretary that he give his advice on this matter, and he said he thought it best for us to ignore it.

I want to report a little incident that happened this year in Pulaski to show how the chiropractors are getting to the public and some of our jurors. A suit was instituted for damages against one of our citizens. He struck a man on the highway. The man complained of an injury to his hip. He was x-rayed and no injury to the bones was found. He filed suit, and three chiropractors had examined him, and they came as witnesses in his favor. Their report was that the coccyx was badly injured and was deformed, curled upon itself. The x-ray was there on exhibition to show that all of the bones of the coccyx were intact and in perfectly normal position, but the jury did not believe the doctors who were in the case and rendered a verdict of \$5,000.

ROCKCASTLE COUNTY

N. M. GARRETT, Brodhead: About two and a half years ago the Rockcastle County Society took on new life, and we meet once a month now. If it seems impractical to have the meeting on the regular time,

we usually have it the next week or so. There are only about eight or nine regular practitioners in the county, and all of these men have taken part in the program during that time. We have had four speakers from out of the county, I think. The rest of the essayists have been local men. We have an active society, and I think that it is helpful.

SHELBY COUNTY

A. D. DOAK, Shelbyville: Shelby County has twelve active practitioners, all of whom are members of our society. We have two inactive practitioners. In addition to these we have eighteen men who practice in the neighboring counties of Spencer, Jefferson, Oldham, and Henry, who also attend our meetings regularly. We meet ten months of the year, at which time the guest speaker is usually someone from Louisville. We have had approximately three-fourths of our men fill out the questionnaires on preparedness. All of those who have not have been men who were from six to nine years beyond the age group and who didn't fill them out because they felt they were not included.

SIMPSON COUNTY

W. L. GOSSETT: We have nine active practitioners in Simpson County, all reputable. If they weren't they wouldn't stay there. With regard to whether or not they filled out their questionnaires, I do not know, but I can say I can vouch for them and myself that if we are needed we will be there.

SPENCER COUNTY

M. H. SKAGGS: The Spencer County Society does not have any active society. We meet once or twice a year. There are only five physicians in the county, only one of whom has paid-up dues to the State Medical Association. All physicians except two have filled out the papers from the A. M. A.

TRIGG COUNTY

W. G. MORGAN, Cadiz: Of the practicing physicians in Trigg County, seven out of eight belong to the local society. We do not have any regular monthly meetings, but we are very fortunate in that the Christian County Medical Society invites us to its monthly meetings, at which there is quite a good attendance from Trigg County because they have a splendid scientific program as well as a good dinner. Once a year, usually in August, we return the favor of the Christian County Medical Society by inviting them over to Trigg County to eat dinner with us. Trigg County has mighty good ham and some burgoo and fish. The members of the

Trigg County Society also belong to a four-county society, comprising Trigg, Lyon, Caldwell and Marion. We meet four time a year, and we try to have our meeting at Cadiz in November. At that time we are sure we can get Dr. John Floyd down there because the bird season is on then, you know, and we always have birds and Trigg County ham, as well as a good program.

TAYLOR COUNTY

M. M. HALL: The Taylor County Medical County Society for the year 1939 and '40 has enjoyed about its usual success. Five regular meetings have been held, with programs furnished by the members with stress on reports of cases. In addition, the society has met in two joint meetings with guest speakers and has attended two meetings of joint sessions of the Sixth and Seventh Councilor Districts.

The society has cooperated with the local post of the American Legion and its Auxiliary in a continuation of the tuberculosis survey of the county. More than 500 possible contacts were skin tested, with x-ray examination of most of the positive reactors, numbering about 100.

Members of the society on two occasions have discussed medical subjects before the Federated Women's Club. Other addresses have been given before the Parent-Teacher Association and the Rotary Club.

The membership of the society numbers six, which is 100 per cent of the eligible doctors of the county.

The society has been saddened by the loss of one of its most valued members of thirty years' standing in the death of Dr. W. R. Elrod, of Mannsville. Dr. Elrod was a shining example of the family physician, doing an immense amount of work in his own quiet, efficient way, making life's road smoother for hundreds of his fellow-men by his kindly administration and preaching a daily sermon in his devotion to duty.

WARREN-EDMONSON COUNTY

JOHN H. BLACKBURN, Bowling Green: In view of the fact that during the summer our Secretary was warring in the wilds of Wisconsin we didn't get from him the data as to the number of members and the number of questionnaires that had been returned. Warren-Edmonson I am sure this year has maintained her standing.

As to meetings, I am reminded of a lady patient of a good many years ago whom I was questioning. She intimated that there was a tendency to constipation, and after considerable questioning on my part, she said, "Well, Doctor, my bowels are regular; they move regularly every eight or

nine days." We meet regularly in Warren County every other month, the intervening month being occupied with the Third District Medical Society. The Third District meetings are made up largely of outside guests. Our county meetings are more often with local members, but we feel that Warren County is maintaining her standard in meetings, and I think that when the roll is called you will find Warren County doctors ready to answer any demand of our government.

WOODFORD COUNTY

GEORGE H. GREGORY, Versailles: Woodford County meets oftener than Dr. Vance gave us credit for. He said occasionally. We meet now every two months. We have a nice dinner at our hospital, and usually physicians from Lexington come down to speak or to visit with us. We find this an unusually good way of meeting, because the doctors are never too busy to come to the hospital for a dinner meeting. Our society is more active than it has been in a good many years, and has been of some service.

I should like to tell you that a few days before the Bowling Green meeting, one of our most active members had a cerebral hemorrhage, Dr. Charles F. Voigt, and since that time he has been entirely unable to move or to speak. If any of you who know him should happen to be in his city while you are in Central Kentucky, I wish you would call and see him.

PRESIDENT SCOTT: The next order of business is the report of Delegates to the American Medical Association. The Delegates are Dr. McCormack, Dr. Hancock, and Dr. Simpson.

J. DUFFY HANCOCK, Louisville: Since the entire proceedings of the House of Delegates of the American Medical Association were printed in the June 22nd and June 29th issues of the Journal of the American Medical Association, and since reports of other of your delegates to that meeting will probably be presented to you, I shall not attempt to give you a detailed discussion of those proceedings. Instead, I would like to make first a few general remarks and then present more thoroughly the resolutions referred to the Reference Committee on Executive Session. Incidentally, the A. M. A. JOURNAL is becoming increasingly more valuable. The sections on organization and medical preparedness are of most timely interest. To keep informed regarding the rapid changes incident to these times it is almost a necessity for all of us to read as well as to subscribe for this JOURNAL.

In the contest for the Distinguished Service Award Dr. Chevalier Jackson won

by a narrow margin over Dr. James Ewing. The first address was by the Speaker of the House of Delegates, Dr. H. H. Shoulders. In analysing the causes for the greatness of the American Medical Association he concluded that it was not due to its size, its scientific achievements nor its contributions to the advancement of the art of medicine. Instead he attributed it to the spirit of democracy which permeates the organization and the observance of the code of ethics combined with the unselfish support of that statement in the constitution which declares that "The objects of the association are to promote the science and art of medicine and the betterment of public health."

On the roll of former delegates who had died during the past years was the name of Dr. Harry A. Davidson of Kentucky.

President Rock Sleyster commended the medical profession on its solidarity as shown by increasing membership through voluntary enlistment in spite of the opposition of small self-constituted groups, vicious propaganda, and actual indictment. He expressed confidence in the cooperation of physicians in the support of preparedness. In a single sentence he gave a slogan for us to use in the fight against state medicine when he said, "We believe, however, that the proper function of government under a democratic system is the protection of its people from the hazards to health, the promotion of standards of living which are favorable to health, and leaving to a free people the free choice of medical care when illness comes unless indigence prevents." He proposed that we rededicate ourselves to a defense of a historic system of freedom of science and its application for human welfare.

Dr. Nathan B. Van Etten, President-Elect expressed concern over the future of the practice of medicine as we now know it should we come under the influence of foreign philosophies or even too much concentration of federal authority. He approved of the establishment of a national department of health and endorsed the President's plan for small hospitals in places where they are needed subject however to very definite safeguards and provisions. In order to aid the House of Delegates to act intelligently on national health problems he urged the delegates to familiarize themselves with conditions prevailing in the states they represent.

Dr. T. C. Routley, Official Representative of the Canadian Medical Association, extended the greetings of that organization, commented on the friendly relations

between Canada and the United States, and told of the mobilization of the Canadian Medical Profession in the present war.

The next important part of the report of the Board of Trustees was its resolutions authorizing the establishment of a Committee on National Preparedness. As a member of the House of Delegates which discussed them I was impressed by the unanimity of the support offered by the profession to the administration for its medical defense plans. As finally adopted the resolutions authorized the Board of Trustees to create a Committee on Medical Preparedness consisting of 10 members of the House of Delegates, appointed by the Speaker, with the President and Secretary of the Association, the Chairman and Secretary of the Board of Trustees and the Editor as ex-officio members, this committee to establish and maintain contact and suitable relationship with all governmental agencies concerned with the prevention of disease and the care of the sick, in both civil and military aspects, so as to make available at the earliest possible moment every facility that the American Medical Association can offer for the health and safety of the American people and the maintenance of American democracy. I am sure that it will be gratifying to you to know, as your President, Dr. Scott, mentioned a little earlier, that two of the ten appointed members of that committee are Dr. Irvin Abell and Dr. Fred Rankin of our own State Medical Society. Dr. George C. Dunham, United States Army, presented a plan for the procurement of professional personnel for the Medical Corps of the Army in the event of a national emergency. This plan showed the same spirit of cooperation towards the emergency. This plan showed the same spirit of cooperation towards the American Medical Association as the Association had shown towards the administration in its medical defense measures. Another interesting resolution considered by the committee was one concerning the protection of practices of physicians who might be called to military service. Both the committee and the House of Delegates endorsed the principle that state and county societies be authorized to set up local committees to work out methods to protect both the financial and the professional interests of physicians in either emergency or continuous military service. Such fraternal consideration would be most edifying to all other groups and the public in general.

In the reapportionment of Delegates this year Kentucky's quota remained unchanged at three. The importance of anesthesia

was recognized by the establishment of a section on Anesthesiology. The plan of Surgeon General Parran for the establishment of a Central Neuro-psychiatric Institute in the Public Health Service was not approved. Dr. Frank Lahey of Boston was elected President-Elect and San Francisco chosen as the meeting place for 1943. It would not be practical at this time even to mention many of the other varied resolutions considered in the House of Delegates—important as many of them were. In summarizing, however, it might be said that the impression given by the delegates was one of aggressiveness—they were aggressive in support of the military defense of the country, aggressive in the fight to maintain a practice of medicine free from state control for the benefit of the public more than themselves, and aggressive in the maintenance of a united profession.

PRESIDENT SCOTT: Dr. Simpson just left the hall. He was one of the other delegates to the A. M. A. and I wished to know if he had any other report to make. Dr. McCormack?

SECRETARY McCORMACK: I have nothing further to add. I approve of what has been reported.

ERNEST B. BRADLEY, Lexington: Would it be out of order to accord the floor to Dr. Kinsman, who has a resolution and will not be able to be here until the end of the session?

PRESIDENT SCOTT: If there is no objection we will allow Dr. Kinsman to introduce new business. It will have to be referred to a committee anyhow.

J. MURRAY KINSMAN, Louisville: I have been asked to present the following resolution. It concerns a rather controversial question, but this is the resolution.

"WHEREAS, Contraception, used to save life and promote health, is an important adjunct to the practice of medicine, and

"WHEREAS, The prescription of contraceptives is properly a function of the medical profession, and

"WHEREAS, The American Gynecological Society in 1935 recommended as of obvious importance, medical leadership and control with respect to contraception as a therapeutic measure, and the American Neurological Association in 1936 and 1937 recognized contraception as a vital part of preventive medicine, and urged the American Medical Association to assume leadership in this regard, and in 1937 the American Medical Association went on record favoring the assumption by physicians of leadership with respect to the control of conception; be it

"RESOLVED, That the Kentucky Med-

ical Association recommend the prescription of scientific contraceptives by the physicians of this state where pregnancies are contraindicated, and be it

"FURTHER RESOLVED, That the Kentucky Medical Association approves in principle the prescription of scientific contraceptives as a part of the preventive medical services in this state."

I move that this be adopted, Mr. President.

E. B. BRADLEY: I will second the motion to adopt the resolution.

PRESIDENT SCOTT: The resolution will be referred to the Committee on Resolutions for action and will then be acted on by the Association after their report.

The next order of business is the report of the Medico-Legal Committee.

REPORT OF MEDICO-LEGAL COMMITTEE

J. B. LUKINS, Louisville: The Medico-Legal Committee has had a very active year. The total number of cases handled has not been as great, but we have had to contend with many intricate and difficult problems.

New cases filed since our last report September 15, 1939, are fourteen. During the year there have been eleven cases dismissed. I don't mean just dropped by indifference. I mean either tried or have come right up to trial and been dismissed. There have been tried through the courts and won, six cases. There are at the present time still pending ten cases.

We are very gratified to report that the percentage of malpractice suits filed because of bad results in fractures is still decreasing, there being only three out of the fourteen new cases, or a percentage of twenty-one per cent. This represents a decrease from sixty-three or sixty-four per cent when we began our intensive work some fifteen or sixteen years ago. We continue, however, to advise the greatest care in the management of any fracture, never to omit the use of the x-ray, and if possible to preserve notes or records of the type of fracture and the method of treatment.

In the last few years we have won two cases filed as a result of Volkmann's contracture, but an effective defense is difficult because of conflicting expert opinion as to the cause.

Sponge cases are again on the increase. We have had two in the abdomen and one in the breast. In the minds of the laity, this disaster is almost inexcusable, and we find these cases very difficult to defend. The surgeon's statement that the responsibility rests upon the operating room nurse and the hospital is never satisfying to the fam-

ily or the jury. We recommend that tape to the sponges or some other form of protection should always be used.

There is increasing evidence that sodium amytal is a very dangerous drug to give preoperatively or for sedation during childbirth.

We continue to urge the use of the x-ray, particularly in fractures and in diagnosis, but insist that in the hands of the novice it is a dangerous and perhaps deadly weapon. I suggest you remember the hints that are thrown out in this report, because every single one of them is founded on experience, most of them dear experience to some doctor, some fellow-practitioner, and I simply give them to you in a more or less general way that you may use them in your practice to your advantage. These x-ray burns are very painful, very disfiguring, and heal slowly, if at all. There are two on hands at the present time, one as large as a dinner plate, and the other a beautiful little girl with a stiff wrist, and the surgeons in charge of the case say it is doubtful if she will ever have the use of her hand.

Cooperation among doctors and more frequent use of consultation are essential if malpractice suits are to be avoided. With the use of our very best judgment and the application of our art and science in the best manner, enough bad results will follow to cause all the worry that any doctor should have. Criticism, unkind and imprudent remarks, bitter jealousies, etc., should have no place in the armamentarium of a Kentucky doctor. A loose-tongued doctor and a hungry lawyer make a bad combination in any community.

We again pay tribute to our faithful and efficient attorney, Mr. Leroy Curtis, and to the loyal doctors over the state who never fail to respond to our call.

PRESIDENT SCOTT: Next is the report of the Committee on Extension Course, by Dr. Keith.

REPORT OF COMMITTEE ON EXTENSION COURSE

"The Committee on Extension Course has been asked to arrange for only three meetings this year. They were: Harlan County, Eleventh District, June 24, Harlan, Kentucky; Hopkins County, Second District, Madisonville, Kentucky, June 22; Mercer County, Sixth and Seventh Districts, Harrodsburg, Kentucky, June 20.

"The Sixth and Seventh Districts had a joint District meeting in Somerset, Kentucky, October 26, 1939, and the Fifth and Tenth Districts had a joint meeting in Frankfort, Kentucky, December 13, 1939. These two meetings were held after the

state meeting last fall and were not reported with the other 1939 meetings.

"Programs were arranged for the three meetings this year, as was requested, using local men in the District and physicians from Lexington and Louisville, as requested by the Councilors.

"In addition, there were other District and county meetings where the committee was not asked to arrange programs, Pediatric meetings have been arranged for and conducted by Dr. P. F. Barbour, who will probably give a report of his work to the Council or to the House of Delegates at this meeting.

"From information we have gained, the Committee is accomplishing what you desire, namely, a chance for the rural physicians to attend meetings close to home and make the Councilors conscious of their opportunity to help educate every physician in their respective Districts. We believe a better attendance at these meetings can be obtained if the Councilors will be more energetic."

PRESIDENT SCOTT: I hope all of these reports will be as brief as possible. We have gotten a little behind our schedule. All of this matter is intensely interesting, but we have a good deal to cover in the next hour.

Next is the report of the Committee on Medical Economics, Dr. C. C. Howard, Chairman. I think Dr. Simpson is prepared to make that report, are you not, Dr. Simpson?

VIRGIL SIMPSON, Louisville: A resolution was passed by the House of Delegates at the Annual Session of 1939, held in Bowling Green, Kentucky, which approved the report of the Committee on Medical Economics, except its recommendations, and continued the committee.

In compliance with that resolution, your committee appears before this House of Delegates with the following statement: It is felt that the section on tuberculosis of the 1939 report of the committee calls attention to the most pressing need in the field of medical care in Kentucky now. Your committee believes that there is a real need for additional hospitals for this class of patients.

The source from which funds should be derived for the construction and maintenance of such hospitals, the number needed, the geographical distribution, how they should be controlled, with other pertinent features, are all questions on which the committee is not now in possession of adequate information to justify specific recommendations. These will require time—at least a year—and the committee desires to

indicate its willingness to undertake the task if the suggestion meets with the approval of the House of Delegates.

Respectfully submitted,

C. C. Howard,
G. L. Simpson,
W. O. Johnson,
Clark Bailey,
W. B. Troutman,
Virgil Simpson,
Committee.

SECRETARY McCORMACK: I move the report be accepted and the committee be requested to continue its investigation.

The motion was seconded.

PRESIDENT SCOTT: This is a very important report and in spite of the lateness of the hour we would like to hear discussion. If there is no discussion I will put the question.

The motion was put to a vote and carried.

PRESIDENT SCOTT: The next order of business is the report of the Committee on Hospital Standardization. Dr. Rickman is unable to be here, and that will be passed until this evening.

Report of the Auditing Committee, Dr. Willis R. Moss, Clinton, Chairman.

SECRETARY McCORMACK: This is the report of the Auditing Committee:

"To the House of Delegates:

"The Auditing Committee has carefully studied the report of the Auditor published in the September JOURNAL and finds it correct.

"(Signed) W. R. Moss, Chairman."

I move it be accepted.

The motion was seconded and carried.

PRESIDENT SCOTT: Report of the Committee on Report of Council, James R. Stites, Chairman.

JAMES R. STITES, Louisville: "The Chairman of your Reference Committee and one of the members had the privilege of accepting the invitation of the Chairman of the Council to attend the meeting at which its report was formulated and approved. We were impressed with the detailed knowledge possessed by the members of the Council as to the affairs of the county societies in their districts. They seemed to know why some members had not paid their dues, a few being ineligible and a few having had changes through deaths or removals in their officers resulting in the temporary loss of interest. In a few, the members had affiliated themselves with other larger adjacent societies which they attend regularly, and most of these had simply overlooked paying their dues.

"From the discussion, we were particularly impressed with the recommendation of the Council that the members of the House of Delegates, upon their return home, pass on to every physician in every county that the foundation of medical organization is the component county society. It has been well said by someone that the county society is the family physician of the county as an organized community. It is perfectly apparent to everyone that the public health is improving. It should be of paramount importance to the county societies themselves to know and to keep the public informed that all of this progress in the protection of the public health and in the prevention and the cure of disease had been due to the action of the medical profession.

"For the first eighty years of the existence of the Commonwealth there was no organized public health service, but soon after the chartering of the Kentucky State Medical Society in 1851, its members began to gather vital statistics voluntarily and to assemble their experiences through their counties in the study of diseases and the causes. It was at the instance of the organized physicians of the state that the State Board of Health was created in 1878, and it was not until 1907 that the first county health officer, not only in the state, but in the United States, was employed on a full-time salary basis in Jefferson County. Most of the other specialties in medicine had developed before this time. The majority of every county board of health in the state are physicians, and it is their obligation to make the best possible use of their organized health department and of all their other facilities to increase the knowledge of the people as to the advantages of the prompt recognition and early and scientific treatment of disease. It is needless to emphasize the place of the American Medical Association and of the other great scientific medical bodies of the nation, but in so far as Kentucky is concerned, its people are going to get all of their medical care and all of their public health procedures from their own state and county societies. The principles behind all medical legislation in Kentucky have been approved by this Association, and these principles and the activities of our health authorities will remain under the control of the medical profession just so long as it continues to do its part in making every one of its component county societies effective units for the public welfare.

"We are interested to note that the JOURNAL is practically paid for by its advertisers. It was stated that this was definitely true over a period of years. We were impressed with the statement that the advertising income is due to our members giving preference to the announcements appearing on its advertising pages. We trust the members of the House of Delegates will carry this message back to the county societies so that their physicians will continue to understand the value of this advertising to themselves and to the organization.

"It is gratifying to know that the membership is larger than for several years; in fact, it is probable that there are not more than 250 physicians in active practice in the state who are not members in good standing of the State Association.

"We have read with special interest the very complete, detailed financial report of the Secretary and Treasurer published in the September JOURNAL and the accompanying report of the public accountant who audited the books. We desire to commend the very complete detail of each and recommend that every member of the profession acquaint himself with the orderly and economical management of the affairs of the Association.

"We congratulate the Council, the State Department of Health, and the Commonwealth, on the fact that \$65,952 has been paid on the purchase price of the J. N. McCormack Memorial Health Building, and the interest is paid to September 1, 1940. This has not involved any expenditure of money on the part of this Association. The Association has acted as the agent through which the State has purchased the property which has made it possible for our Association and the State Department of Health to be housed in a dignified, convenient building.

"We are happy that the Davenport portrait of Dr. Ephraim McDowell has been brought back home.

"We approve and recommend that the House of Delegates make appropriations recommended by the Council of a sum not to exceed \$1200 for the enforcement of the Medical Practice Act, the sum of not to exceed \$1200 for the expenses of the Committee on Public Relations, the sum of \$200 for the dinner for the officers of the State Medical Associations of the Southern States during the Annual Meeting of the Southern Medical Association, and the sum of not to exceed \$500 as a reserve fund for

the use of the Woman's Auxiliary and its Quarterly Supplement, should it become necessary to use it.

"We note with pride the action of the President in appointing the Committee on Medical Preparedness at the request of the American Medical Association, and we approve the recommendation of the Council that such expenditures as may be necessary for it to do a good job may be authorized.

"Your Committee feels that the recommendation of the Council in regard to the development of the Woman's Auxiliary in each county of the state is to be especially commended; we note that this recommendation has been repeated for several years and we wish to urge the members of the House of Delegates to try to organize the wives, mothers and daughters of physicians into an active agency for public health education in all of the counties of the state. It is apparent to everyone that the public relations of progressive bodies such as ours are of increasing importance. Our women are naturally interested in the success of the medical profession; they can interpret our purposes to the women's groups of the state as no one else can. The Quarterly Supplement is one of the most valuable parts of our JOURNAL. We urge the members to take these home to their families. That the relatively small group of women who have interested themselves in the Auxiliary have been able to collect the material and edit and support the Quarterly without expense to the Association is a matter in which we can all take a great deal of pride. We not only desire to congratulate them, but we want to urge that every woman member of a medical family be made conscious of the value of this organization, both to the profession and to the public.

"We congratulate the House of Delegates on the evident interest in and the work shown by the members of the Council, and we recommend that the House of Delegates express its appreciation to them for the amount of service given in the common interest of the medical profession and the people of Kentucky which is beyond price.

JAMES R. STITES, Louisville; There is only one question about which we are in doubt, and that was the appropriation of the \$1,200 for the enforcement of the Medical Practice Act. We did not know that there are no state funds available for the enforcement of that Act, and we move that the report of the Council be accepted and

the appropriations be made, but we would also like to warn the Council that our state dues have been stretched about as far as they can be stretched and too many appropriations are probably going to call for an increase in dues.

“(Signed) James R. Stites, Chairman,
Paul S. York.”

I move the report of the Council be approved.

The motion was seconded.

PRESIDENT SCOTT: You have heard the report of the committee. Is there any discussion? If not, all those in favor indicate by saying “aye”; contrary “no.” It is carried. The report of the Council stands approved, together with the recommendations for expenditure of funds.

SECRETARY McCORMACK: There probably should be notice given to the House of Delegates that subsequent to the meeting of the Council the Chairman of the Committee on Scientific Exhibits, Dr. Simpson, requested that an appropriation be made for the purpose of procuring the booths for the scientific exhibit. After some investigation we found this would cost somewhere in the neighborhood of \$340. The Chairman of the Committee on Scientific Program, Dr. Bell, approved this resolution and a mail vote was taken by the Council and all the members voted in favor of it. I think in all probability the House of Delegates should determine whether they desire that policy continued. Of course, we paid the expense of \$340 out of our reserve this year, and there is no question about the almost necessity for having these booths at future meetings. I think a motion should be made on the subject, because without it the Council would not have the right to make an appropriation unless a motion to that effect were made.

PRESIDENT SCOTT: That is really not in order in connection with this Council report.

SECRETARY McCORMACK: That is a supplementary report of the Council, necessarily.

PRESIDENT SCOTT: I think that is new business, because the Council said nothing about it.

SECRETARY McCORMACK: It didn't say anything about it, but that is in the report of the Council. We have to have the authority to make the expenditure next year.

PRESIDENT SCOTT: It is just a question of order. Without objection I will accept it, however, whether it is new business or not. Do you make that a motion?

SECRETARY McCORMACK: I make a motion

the Council be authorized to make an expenditure not to exceed \$340 for scientific exhibit booths next year. That ought to be referred to the Committee on Report to the Council.

The motion was seconded.

PRESIDENT SCOTT: The next order of business is the report of the Delegate to the Convention for the Revision of the U. S. Pharmacopoeia, Dr. Simpson.

VIRGIL E. SIMPSON, Louisville: This constitutes the first annual report on the work of the Revision Committee U. S. P. XII, and is hereby respectfully submitted to the House of Delegates, through whose action I am the accredited representative of the Kentucky State Medical Association.

The Decennial Convention for the revision of the U. S. P. XI met in Washington, D. C., May 14, 1940. The Kentucky State Medical Association was entitled to three delegates. Only two registered, Dr. Luther Bach, Newport, Kentucky, and Dr. Virgil E. Simpson, Louisville, Kentucky.

The chief functions of the Convention consist in setting up the general principles which will govern the work of revision and the selection of a Committee on Revision which will do the actual work of revision. This Committee consists of seventeen physicians and thirty-four pharmacists. The Revision Committee is broken down into subcommittees for the technical work. The Subcommittee on Scope selects the agents that are admitted to the U. S. P. XII. This subcommittee is composed of seventeen physicians and six pharmacists. It has already selected 271 agents for admission, and other subcommittees are at work preparing the monographs for these agents.

The medical profession is invited to make suggestions to the Subcommittee on Scope for material for U. S. P. XII.

AMERICAN MEDICAL ASSOCIATION COOPERATION

Those of you who receive and read the JOURNAL of the American Medical Association know that a series of articles have been published in the JOURNAL under the title “Pharmacopoeia and the Physician.” These articles, forty-eight in number, were prepared by specialists on invitation of the Revision Committee. The authors were not limited to the drugs listed in U. S. P. XI, but were at liberty to discuss all agencies which they use and find worth while. This latitude gives the Revision Committee the benefit of this combined experience with drugs now unofficial and which may be considered for admission to the next Pharmacopoeia. It may

interest you to learn that in these articles the authors named drugs, seventy per cent of which are already official; ten per cent are listed in the National Formulary, eight per cent are listed in the N. N. R. 1939, and eleven per cent were not found in either of these texts.

The statement is frequently heard that one could practice medicine effectively on some small number of drugs, twenty or forty or one hundred. In the first twenty nine of the articles under discussion were listed 385 drugs found in the U. S. P. XI, forty-two listed in N. N. R. (1939), and about the same number not listed in either text.

During the coming twelve months another series of these papers will be published in the JOURNAL of the American Medical Association.

CONTINUOUS REVISION

One of the most important innovations of the Revision Committee is the plan for continuous revision. Until the issuance of U. S. P. XI, each new book was issued every ten years and each new committee began its work as a new task. Four to five years elapsed after each Convention before the next book could be issued, and the Committee did no more work until the next Decennial Convention selected a new committee. Under the plan of constant revision, the Pharmacopoeia is kept new and revised to date by the issuance of supplements.

ADVISORY BOARDS

In my annual report of 1939, reference was made to the advisory boards set up by the Revision Committee. The Committee does not affect to know everything about everything, hence it has created advisory boards, the members of which are experts in practice or research. The Vitamin Advisory Board, the Anti-Anemia Preparations Board, the Endocrine and Hormone Advisory Board and the Sterile Products Advisory Board are now functioning for the information of the Revision Committee.

THE PHARMACOPOEIA AND STATE DRUG CONTROL

The Pharmacopoeia serves a varied relationship to interested groups. The pharmacist finds it a text of formulas which he must follow; to the physician it is a compendium of dependable therapeutic agents, and so to each group it has a function. To the official who is charged with the control of drugs bought and sold in the state, it is a book of legal standards. The Food and Drug Act of 1906 and the new Federal

Food, Drug and Cosmetic Act of 1938 both included in their definition of the term "drug" an "article recognized in the official U. S. Pharmacopoeia," and holds such article to be adulterated if its strength, quality or purity falls below the U. S. P. standards.

The state laws are patterned after the Federal law, hence the importance of the Pharmacopoeia becomes apparent at once. State control differs materially from federal control; for example, the Federal agency is concerned with unbroken packages in interstate commerce, while the state's authority is limited to preparations sold by the retail druggist and other agencies disposing of medicines to the public. The Pharmacopoeia provides methods of assay which enable the state official to determine the legal status of a product.

Such a status of responsibility drives home the realization that the Pharmacopoeia must be accurate in detail. A physician may ignore an error, the pharmacist may correct such error, but the drug control official of the government or the state must defend it as the essence of accuracy.

THE PHARMACOPOEIA AND PATENTS

I have in previous reports called your attention to the present situation with reference to patents and how they affect revisions of the Pharmacopoeia.

No definite solution has been found for the difficulties connected with patented articles. There is no difficulty in securing patents. A patent on a medical product does not necessarily insure its value as a medicine; it does not even indicate that it has any value. Until the patent expires, its owner may make changes in method of preparation or strength at any time. This was not so particularly objectionable, but when a patent is obtained that in effect covers studies of a disease as well as a remedy for it, the limit of tolerance has been reached. The patent on scarlet fever serological products is a rank example of the unreasonable control which a patent may convey. The A. M. A. has, through its House of Delegates, considered the problem, and through a committee headed by Dr. Roger Lee, of Boston, has been studying the many aspects of patents and therapeutic agents during the past year.

PRESIDENT SCOTT: I think, in order to save time, since Dr. Simpson is here, he can make his report on scientific exhibits. His report is downstairs, I think, chiefly.

VIRGIL E. SIMPSON: Your President has rightly said what your Committee on Scientific Exhibits has undertaken to do is in

evidence on the first floor of this hotel in the Rookwood Room and the adjacent dining room. We have tried to present a variety of material which will interest, we think, most of the personnel of the profession, and we hope you like it. (Applause).

PRESIDENT SCOTT: Next is the report of the Committee on Public Relations. Dr. Abell has sent his report and Dr. McCormack will read it.

SECRETARY McCORMACK: This will be the second meeting Dr. Abell has missed since he graduated in medicine, the only other one being while he was in France during the war, and I know how he regrets not being here.

"Your Committee has kept in mind faithfully during the year the purposes of this Association and we take very great pride in quoting Article II of the Constitution:

"The purpose of the Association shall be to federate and bring into compact organization the entire medical profession of the State of Kentucky and to unite with similar associations in other states to form the American Medical Association, with a view to the extension of medical knowledge, and to the advancement of medical science, to the elevation of the standard of medical education and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians, and to the guarding and fostering of their material interest and to enlightenment and direction of public opinion in regard to the great problem of state medicine, so that the profession shall become more capable and honorable within itself and more useful to the public, in the prevention and cure of disease and in prolonging and adding comfort to life."

"These high purposes have animated the medical profession since its development; it was with them in view that medical schools have been increasingly perfected for the training of students in medicine, that the specialties have developed and it was because of them that preventive medicine became an integral part of it and that boards of health have been organized.

"It is very important for us to keep in mind, as well as to keep our people reminded, that all of these results have been brought about because we have been permitted to develop the greatest system of private medical practice and the most nearly perfect hospital system in any country. As long as we maintain these high purposes, we need feel but little anxiety as to the assumption of control of

our profession by governmental or lay bodies.

"It is essential, however, that we actually do the things we propose to do; we cannot shirk our responsibility and permit laymen to do our job for us, and then reap the gratitude that has always been heaped on sincere physicians.

"It was with this idea in view that the legislative program for the year 1940 was mapped out. From experience in other states, we had found difficulties in the various premarital laws requiring medical certificates of freedom from venereal disease before a marriage license could be issued, and with the fine support and understanding of Governor Johnson, we were able to pass an amended bill which is entirely practicable and which will help to prevent persons afflicted with syphilis in a communicable stage contracting the marriage relations until they have been so treated as to prevent danger to their marital partner or off-spring.

"Acting under your instructions last year, your Committee also prepared and sponsored the prenatal bill requiring sero-diagnostic tests for syphilis on pregnant women. This bill was drawn after consultation with the Advisory Committee on Control of Syphilis and the Committee on Obstetrics; it also had the approval of the counsel of the American Medical Association, and the American Social Hygiene Association. It conforms to the laws which have been adopted in many other states.

"The purpose of these two pieces of legislation are similar, and may be simply stated as an attempt to provide effective machinery for the detection of syphilis in young people of child-bearing age at a time when its prompt treatment will not only bring relief to the infected persons but will prevent its spread within the family and to others. No other legislation has been enacted placing a greater responsibility on practicing physicians. It should be remembered by every one of us that these legislative proposals were enacted because they were approved by our Association as the guardian of the health and lives of the people of our Commonwealth. Knowing the danger of unrecognized and untreated cases of syphilis, the profession has sought the means to find the cases, and then, to see that they are treated promptly and thoroughly.

"At your request, the State Department of Health has already more than quadrupled the facilities of its laboratory for doing the Kahn tests; some six hundred to one thousand specimens sent in by physicians of Kentucky are examined daily. It

is important to emphasize that the examinations in the State Laboratory are for those who are unable to pay a private laboratory for such examinations. It is with considerable pride that we call your attention to the list of approved sero-diagnostic laboratories in the State; that we have twenty-seven private laboratories in Kentucky conforming to the high standards which have been set up by the reliable clinical groups, and approved by the American Medical Association and the United States Public Health Service, is indeed gratifying. It is also a matter of great satisfaction that the laboratory of the State Department of Health ranks among the first in the United States in its accuracy of serodiagnosis.

"During the year, the Advisory Committee on the Control of Syphilis had speakers before many of the County Societies, discussing the details of these laws, and numerous articles and pamphlets have been distributed in regard to it. In the JOURNAL, you will find the most recent scientific advances in the diagnosis and treatment of syphilis, and experience with similar laws in other states. Your Committee has noted reports from several states having similar laws, that in each, a few members of the profession have prostituted their obligations and violated the honorable traditions of medicine by providing the required certificates without honest examination beforehand, and by so doing, attempting to profiteer at the expense of the applicants for marriage certificates. We bring this to your attention because we know this Association will want it made obvious that similar violations of professional standards and of the law will not be tolerated in Kentucky. We are sure this Association desires to reiterate its admonition that any physician who is guilty of the violation of this law will be dealt with as summarily as are those who violated the Harrison Narcotic Act, or who have committed criminal abortion.

"Your Committee was instrumental in drawing a bill for the amendment of the Non-Profit Hospital Service Act. The bill defines hospital service, limits group hospital service, authorizes the State Board of Health to adopt regulations under which hospitals will be approved for accepting holders of such insurance by authorized corporations. We feel that one of its most important provisions is, 'nothing in this Act shall be construed so as to permit any hospital, public or private, or other corporation to engage in the practice of medicine or any other form of the healing art.'

"At the suggestion of this Committee,

the State Commissioner of Health has delayed requiring the registration and approval of hospitals provided in the Act, so as to give them time to provide the adequate hospital service necessary under it.

"It is provided in the Act that no 'hospital, public or private, shall enter into any contract for group hospital service, after the passage of this Act unless and until the form of such contract has been approved in writing by the State Board of Health under such rules and regulations as may be adopted and promulgated by it, which rules and regulations shall include the maximum number of contract holders based on the bed capacity of the hospital.'

"Acting further under your instructions and with the approval of the Kentucky Hospital Association, we prepared an act providing for the licensure, regulation and inspection of hospitals and clinics; for granting or refusing approval of new or additional hospitals or clinics; and authorizing the State Board of Health to make rules and regulations consistent with this Act and to prevent violations of this Act by injunction proceedings.

"Although this bill had been introduced under the specific instruction of the House of Delegates and with the approval of the State Hospital Association, physicians connected with a few hospitals in the State secured vigorous opposition to it from influential senators and representatives, forgetting the fact that the State Board of Health is the legal arm of the medical profession of the State in regard to the licensure of physicians and that it has never been criticized for the exercise of these powers, and further forgetting that the majority of the members of the Board are themselves the owners of small hospitals. The absurd objection was raised that this proposed law was designed to harass such institutions. The truth is that this bill was drawn for the purpose of protecting all the hospitals of the State. It has been definitely shown by the conditions in many sister states that such legislation is essential. We are presenting here to you the full text of the bill with the hope that it will again meet with your approval for presentation at the next session of the legislature. Without such legislation, existing hospitals and the profession are threatened with the construction of chain hospitals and other ill-equipped institutions that would endanger the public health and the high standards to which our people are entitled. The bill reads as follows:

"ARTICLE I—Definitions

"Section 1. Hospitals.—The word 'hos-

pital, as herein employed, means any institution which maintains and operates organized facilities for the diagnosis and/or care, and/or treatment of human illness or injury, including convalescence, and/or care during and after pregnancy, where persons may be admitted for overnight stay or longer.

“Section 2. Clinics. The word clinic, as herein employed, means any place, except the private office of a person holding a valid certificate as a duly licensed practitioner of the healing art, in which are maintained and operated organized facilities for the diagnosis and/or treatment of human illness or injury, and/or conduct of physical, mental or obstetrical examinations, which serves only persons who remain in said place for less than overnight stay.

“ARTICLE II—Obligatory Licensure

“Section 3. Unlawful Maintenance or Operation. It shall be unlawful for any person, co-partnership, association, corporation or governmental authority to maintain or operate any hospital and/or clinic without a license as herein required.

“Section 4. It is unlawful for any hospital or clinic to engage in the practice of medicine as defined in Section 2615-2 Baldwin's Kentucky Statutes, Carroll's 1936 Edition, or in the practice of dentistry as defined in Sections 2636-14 of Baldwin's Kentucky Statutes, Carroll's 1936 Edition. It is the purpose of this Act to preserve and gradually improve the high standards of hospital and clinic care of the great voluntary and public hospitals now recognized in Kentucky by the national professional organizations approving them; and to provide additional or new facilities, necessary for the practice of medicine and/or the other branches of the healing arts, or dentistry, in hospitals or clinics where need for them exists and where they can be maintained; and to preserve the private practice of medicine, the confidential relationships between physician or dentist, and patient; and the free choice by the people of a practitioner of the healing arts, including dentistry, amongst those authorized to practice under the Medical Practice Act, and/or the Dental Practice Act.

“Section 5. Application for License.

(a) Every applicant for license shall file with the State Board of Health a written application on a form prescribed by the State Board of Health which shall state, together with such other information as the State Board of Health may require:

“(1) The names and addresses of the officers of any corporation or organization conducting any hospital and/or clinic, and

the names and addresses of the owners and officers of any private hospital and/or clinic and/or of the person or persons in charge thereof.

“(2) A statement as to whether the professional staff is open or closed, and the names and addresses of the professional staff and its officers and a statement as to whether guest physicians, or guest dentists are entitled to use the facilities of the hospital and/or clinic, and if so, the names and addresses of such guest physicians or dentists.

“(3) The nature and financial structure of the organization of the hospital and/or clinic, whether proprietary, voluntary, or governmental;

“(4) The location with a plan of the premises including detail of electrical and plumbing lay-out.

“(5) A description of the types of services intended to be rendered, and the capacities and facilities of the building thereof.

“(6) The number of interns and resident physicians, if any.

“PROVIDED, that no interne shall be appointed or employed who is not eligible to examination under the Medical Practice Act and no resident physician shall be appointed or employed who is not authorized by law to practice medicine in Kentucky.

“(b) The State Board of Health, with the assistance of the Hospital Advisory Committee, shall make a thorough investigation of all applications for license. Before any application is rejected, the State Board of Health shall give thirty days notice to the applicant, who may, at his option, be heard in person, or by counsel, and may present such evidence as he desires to show cause for the issuance of such license.

“Section 6. Duration, Display, and Renewal of Licenses. All licenses shall expire one year after issuance, shall not be transferable, shall apply only to the premises named in the application, shall be conspicuously displayed on the licensed premises, and may be renewed upon satisfying the State Board of Health that such renewal serves the public interest.

“ARTICLE III—Creation of Hospital Advisory Committee.

“Section 7. Advisory Committee Created, Qualifications, Manner, Term of Appointment of Members.

“The State Board of Health shall be authorized to administer this Act. A Hospital Advisory Committee to the State Board of Health of five members, is hereby created, for the purpose of this Act;

and the Director of the Division of Hospitals in the Bureau of Medical Service of the State Board of Health shall be the Secretary of the State Hospital Advisory Committee, but shall not be a member. Three of said members shall be hospital administrators, actively engaged as the chief executive of hospitals in this state, at least two of the three shall be from general hospitals, and at least one of the three shall be a nurse administrator. The other two members shall be physicians who have had five years' experience as members of a hospital staff, one of whom shall be selected from hospitals in cities of the first, second or third class, and the other of whom shall be selected from a rural hospital.

"Members of the Hospital Advisory Committee shall be appointed by the State Board of Health from nominations submitted as follows:

"The Board of Trustees of the Kentucky State Hospital Association shall submit three nominees for each hospital administrator to be appointed, and the Council of the Kentucky State Medical Association shall submit three nominees for each physician to be appointed. The term of office shall be for three years. In the appointment of the initial Advisory Committee, the nurse administrator shall be appointed for one year, one hospital administrator and one physician for two years, and the remaining hospital administrator and physician for three years. Thereafter such appointment shall be for three years. The members of the Hospital Advisory Committee shall serve without pay but they shall be reimbursed for actual traveling expenses to called meetings.

"ARTICLE IV—Power and Duties of the Board.

"Section 8. The Committee is authorized to advise the State Board of Health with reference to the carrying out of the provisions of the Act including:

"(a) The review of applications for licenses for hospitals and clinics submitted in accordance with and meeting the requirements of Section V of this Act, and recommendation of such projects as in its opinion are needed, will be adequately maintained, and otherwise will fulfill the requirements of this Act;

"(b) The formulation of standards which are necessary to insure proper conduct of the hospitals and care of persons served by the hospitals and/or clinics.

"(c) The formulation of rules and regulations necessary to carry out the provisions of this Act;

"(d) The review of reports and in-

spections and, when necessary, the making of inspections with reference to professional service and standards of maintenance of the hospitals.

"Section 9. Issue of Licenses. When satisfied that all requirements of this Act and the rules and regulations of the State Board of Health have been complied with, that there is a reasonable need for the services proposed to be provided and that the granting of a license will otherwise serve the public interest in protecting the public health by providing facilities for good medical and/or dental practice, the State Board of Health shall issue a license to the applicant. Before final action is taken by the State Board of Health in the granting of a license, the application shall be submitted to the Hospital Advisory Committee for its recommendation.

"Section 10. Appointment of Administrator and Assistants. The State Commissioner of Health shall administer the provisions of this Act and the rules and regulations of the State Board of Health. The State Board of Health shall have the power to employ the service of inspectors and other necessary assistants in the administration of this Act.

"Section 11. Rules and Regulations. The State Board of Health shall make and enforce reasonable rules and regulations consistent with law, for the issuance of licenses, for the proper maintenance, operation and conduct, and for the visitation and inspection of all licensed hospitals and/or clinics. Such rules and regulations shall classify and apply to institutions according to their location, facilities, nature of their organization and the type of service provided; shall establish standards of medical and administrative efficiency for each such classification, and shall require that adequate records be kept and that periodic statistical and financial reports be rendered to the State Board of Health. Rules and regulations authorized in this action shall, before approval, be referred to the Hospital Advisory Committee, the Council of the State Medical Association, and the Board of Trustees of the Kentucky Hospital Association, and each of said bodies shall have thirty days from the receipt of such proposed regulations by their Chairman, in which to suggest changes and amendments, before said rules and regulations shall be adopted and promulgated.

"Section 12. Visitation and Inspection. The State Board of Health, any member of the Hospital Advisory Committee and the duly authorized representatives of the State Board of Health shall have free and

full access to the grounds and buildings and to the records of all licensed hospitals and/or clinics, and full opportunity to interview any of the personnel and patients therein. It shall be the duty of the State Board of Health to make, or cause to be made, periodic visitation and inspection of all institutions licensed under this Act.

“Section 13. Revocation and Suspension of Licenses. Whenever the State Board of Health shall discover any violation of this Act, or of its rules and regulations, it shall give written notice thereof to the offending licensee, which notice shall contain a copy of the complaint, and the licensee shall be given at least thirty days in which to prepare for a hearing, and he shall be heard in person, or by counsel, or both, as he may elect, and the procedure in said hearing and the appeal therefrom shall be the same as provided for the revocation and/or suspension of a certificate to practice medicine in Section 2615 of the Kentucky Statutes. The State Board of Health may suspend or revoke the license, if such violation, as found after the hearing, does not cease within three months, or such reasonable time as the State Board of Health may determine to be necessary, after such written notice. In any proceedings under this Section, the Hospital Advisory Committee shall sit with the State Board of Health and it shall make recommendations to the State Board of Health before its decision shall be rendered.

“Section 14. Restraint of Violations. The State Board of Health shall have power to institute legal proceedings in its own name to restrain and enjoin the violation of any of the provisions of this Act and of any of the rules and regulations made pursuant to this Act.

“Section 15. In carrying out the purposes of this Act, the State Board of Health is authorized and directed, after consultation with the Committee:

“(a) To conduct, assist and foster studies and surveys with respect to needs for hospitalization and problems of hospital operation;

“(b) To approve hospital projects, to designate their location, type, equipment and size of hospital and to allocate available funds to such approved projects;

“(c) To provide training and instruction of personnel who will be required in connection with the hospitals, and/or clinics;

“(d) To cooperate with physicians, county health, fiscal and school authorities, and with state and county welfare authorities; with fiscal health and welfare au-

thorities of cities and with professional agencies;

“(e) To secure reports and make inspections with respect to professional service and standards of maintenance of hospitals and other matters pertinent to carrying out the purposes of this Act;

“(f) To adopt such additional means as may be found necessary or appropriate to carry out the provisions of this Act, including the safeguarding of the quality of service furnished in hospitals.

“Section 16. No county, city or other political subdivision, or part thereof, alone or in combination, and no individual, partnership nor corporation shall seek to raise funds nor secure title or land, or other property for the purpose of erecting, establishing or building a hospital and/or clinic in this state until the provisions of this Act have been complied with.

“Section 17. New Construction. (a) After this Act shall become effective, the approval of the State Board of Health must be secured before any new hospital or clinic may be organized and/or construction begun, and before any alterations or additions shall be made to existing hospitals. The State Board of Health shall make such investigations of the proposed organization and the need for the additional hospital facilities proposed, and after a public hearing is held at which all interested parties are heard, it may approve or disapprove such proposed organization and/or construction after considering whether the public convenience and necessity require the operation of said hospital.

“(b) In granting or refusing to grant such approval, the State Board of Health shall take into consideration the need for the proposed hospital facilities in the territory to be served, the adequacy of financial support for the continued maintenance of such hospitals, the availability of physicians for the rendering of necessary medical care, and the public convenience and necessity which is involved from the granting of such approval.

“(c) After the State Board of Health has approved the organization of a new hospital, the complete plans and specifications of construction must be approved by the State Board of Health before construction is begun. The approval of the State Board of Health shall be based upon fire-safe construction, compliance with the Plumbing Code of the state, and general sanitary provisions for the well being of the persons to be served.

“(d) The recommendation of the Hospital Advisory Committee shall be

secured by the State Board of Health before final action is taken on such approvals as are required in this section.

“ARTICLE V—Miscellaneous Provisions.

“Section 18. Judicial Review. Any action by the State Board of Health refusing to issue or renew a license or revoking or suspending a license may be reviewed by an appeal to the Franklin Circuit Court, which shall review the record and findings of the State Board of Health.

“Section 19. Constitutionality. If any section or part of this Act shall be held unconstitutional, or inoperative, for any reason, no other section, or any part of this Act shall be affected thereby, and the remainder thereof shall continue in full force and effect.’

“Your Committee also caused to be introduced a tentative draft of a Food, Drug and Cosmetics Bill which conformed to the new Federal law. Because of typographical errors in the original bill and the resulting newspaper publicity, this proposal got off to a bad start. At first, we were a little dismayed by this, but we soon found that there were a number of inherent difficulties in the proposal itself. We had a number of conferences with committees from the State Pharmaceutical Association and found them entirely sympathetic with the purposes of the bill and because of objections to certain features, its provisions were easily modified, and its final approval by the Pharmaceutical Committee came too late to do any good at this session of the legislature. We are glad that this happened, because we feel that we will be able to present a far more effective piece of legislation of this important subject for the protection of our people from fraud and deceit in the sale of foods, drugs and cosmetics. The State Pharmaceutical Association has appointed a committee with which we will confer in the drafting of the proposed legislation.

“Late in the Session, the State Hospital Association presented to us, and we approved, an act ‘to provide reimbursement for hospitals on account of expenses of the care of indigent persons injured in motor vehicle accidents, imposing powers and duties upon certain state departments, and creating a fund for such purpose, and levying a tax on passenger automobiles and motor trucks to provide funds to carry out the provisions of this Act.’

“There was no objection to the passage of this Act but it was lost in the crowded condition of the calendar at the end of the Session. Enactment of this bill into law is cordially approved and we are also

including it in full in this report, so that our members and the hospitals of this state may know about its provisions. This bill reads as follows:

“Section 1. For the purpose of this Act:

““Motor vehicle injury” means any personal injury suffered by a human being and caused by the operation of a motor vehicle, on a public way, street or highway of the Commonwealth of Kentucky, whether the injured person be the operator of such motor vehicle, a passenger in the same or in another vehicle, a pedestrian, or whatever be the relation of such injured person to the operation of such vehicle; and whether or not such motor vehicle is under the control of a human being at the time of such injury.

““Hospital” means any institution registered and approved by the State Board of Health which receives and cares for patients suffering from motor vehicle injuries.

““Indigent patient” means a person who has suffered a motor vehicle injury, is received and cared for in a hospital, is unable to pay for the cost of such care, and whose account therefor remains unpaid at the expiration of thirty days after the termination of such care; it excludes an employee suffering from a motor vehicle injury with respect to which he is entitled to the benefits of the workmen’s compensation act of this or any other state or country. A person injured by the operation of a motor vehicle shall be deemed unable to pay such charges if it shall appear that, should an action be brought and judgment secured for the amount thereof against him or against any other person legally responsible for the care, execution, thereon would be unavailing.

“Section 2. Within thirty days after this Act shall take effect, the State Commissioner of Health shall certify all approved hospitals in the state within the meaning of this Act. Thereafter, from time to time, said Commissioner of Health shall in like manner certify any additions to or subtractions from said list.

“Section 3. Each hospital in order to be entitled to the benefit of this Act, shall make and file with the Commissioner of Health monthly, as of the last business day of each month, a report under oath showing the name of each sufferer from a motor vehicle accident, received into and cared for in such hospital during the month covered by the report, for whom such hospital may desire to make claim under this Act; the time and place of the accident or occurrence in which the injury was incurred; the total number of days’ care given

to each sufferer in the month for which report is made and in any preceding month or months; the date of the receipt and discharge of such sufferer or other termination of such care; and such other facts or information as the Commissioner of Health may require in the form of report prescribed by him.

"Section 4. At the time of making any monthly report each hospital may present a statement of its claim for reimbursement for the cost of the care of each indigent patient, which claim has matured within the month covered by the report then due or within any previous month. Each such claim shall be made in form prescribed by the Commissioner of Health and shall show the following:

"1. The name of the person to whom care has been given.

"2. The number of days' care, with the dates of reception into the hospital and discharge or other termination of care.

"3. The amount of the claim.

"4. A statement under oath, showing the effort made by the hospital to collect the amount of the claim from the indigent patient, and the amount, if any, collected from such patients, or any other person on his account.

"5. The affidavit of the indigent patient if living, that he is unable to pay such hospital charges.

"6. Such other facts and information as the Commissioner of Health may require in the form of claim prescribed by him.

"7. For the purpose of the claim provided for in this section an indigent patient who is not otherwise able to pay such hospital charges shall not be deemed to be able to pay the same because a third person might be held liable in an action to recover damages on account of such motor vehicle injury, which has not been filed; but if such an action has been filed, the statement of claim shall show the fact and the Commissioner of Health may in such event suspend the determination of such claim until such action shall have terminated and may require such hospital to furnish such further information with respect to such action as he may deem necessary in order to determine the ability of the patient to pay the charges for which claim is made.

"Section 5. The Commissioner of Health shall examine and audit each claim presented to him under the provisions of this Act. From the facts and information contained in the claim, the monthly reports of the claimant hospital, the supporting certificates and affidavits, and such other

evidence as he may require, the Commissioner of Health shall ascertain and determine as to each claim the following facts:

"1. Whether or not the claim is predicated upon care given to a person suffering from a motor vehicle injury as defined in this Act.

"2. Whether or not such person is able to pay the hospital charges for which the claim is made, within the meaning of this Act.

"Section 6. When and if the Commissioner of Health shall have determined that a claim presented to him under the provisions of this Act by a hospital which has complied with said provisions is made in respect of an indigent patient as evidenced by his findings under Section 5 of this Act, he shall determine the amount of such claim in accordance with the prevailing rates of the claimant hospital for ward care, and shall pay the amount so ascertained to the claimant from the special fund created by this Act. The Commissioner of Health may make monthly payments to each hospital entitled to receive the same covering all claims audited and approved by him within the preceding month.

"Section 7. If the Commissioner of Health shall disapprove any claim made under the provisions of this Act, except as to the amount hereof, he shall notify the claimant hospital that the same has been rejected, and state in such notice the ground or grounds of rejection. In such event, the claimant hospital shall be entitled to a hearing before the Commissioner of Health on the grounds of rejection so specified, within thirty days after the receipt of such notice, and his decision thereon shall be final.

"Section 8. Whenever it shall come to the knowledge of the managing officer of a hospital which has received payments of a claim under the provisions of this Act that the patient in respect of whom such claim has been paid, or any other persons chargeable by law with his care and support has paid, or is or has become able to pay the amount thereof, such managing officer shall notify the Commissioner of Health thereof, and, if such hospital shall thereafter make a monthly report and/or claim for reimbursement under the provisions of this Act, a reference to such paid claim in such form as the Commissioner of Health shall prescribe, showing the name of the patient and the amount paid, shall be incorporated in or attached to such report or claim. Whenever the Commissioner of Health shall otherwise acquire

knowledge of facts showing that a patient in respect of whom a payment has been made as provided in this Act, or any other person chargeable by law with his care and support has paid, or is or has become able to pay such amount thereof, he shall notify the hospital which has received such payment by letter addressed to the managing officer thereof, giving a brief statement of the facts thus coming to his knowledge and specifying the amount of such paid claim, the date of its prior payment, and the name of the person from whom the same may be recovered.

“Within one month after such managing officer shall have given the notice herein required, or such hospital shall have received such notice from the Commissioner of Health, such hospital shall, unless the amount specified therein has been fully paid, collect such amount or the balance thereof from such patient or other person chargeable by law with his care or support in default of such collection, file an action against such patient or other person chargeable by law with his care and support for the recovery of the sum so paid or balance thereof. Such hospital shall in its monthly reports, or otherwise, advise the Commissioner of Health as to the collection of such amount, or as to the filing of such action and the proceedings therein; and, in the event of recovery of judgment therein, and if the amount of such judgment is not realized, shall show by certified copies of the proceedings that all legal remedies for the satisfaction of such judgment have been exhausted.

“When notice has been given as required by this section, the Commissioner of Health shall deduct the amount of the prior payment made to the hospital affected thereby from any payment or payments to be made to such hospital under the provisions of this Act on or after two months from the date of such notice, unless such hospital shall have advised the Commissioner of Health as herein provided that an action has been filed for the recovery of such amount from the patient or other person chargeable by law with his care and support, that such action has not been finally determined, and that there is reasonable ground for delay; or unless such hospital shall so advise the Commissioner of Health that such action has been prosecuted to final judgment and that all legal remedies for the satisfaction of such judgment have been exhausted without realizing the amount thereof.

“Section 9. Whenever under the provisions of Section 8 of this Act the Commis-

sioner of Health would be authorized to deduct the amount of a prior payment to a hospital from a subsequent payment or payments to such hospital, he shall, in the event no such subsequent payment shall fall due within three months after the right to make such deduction accrues, certify the amount of such prior payment, without interest to the Attorney General for collection from such hospital. Such amount may be recovered from such hospital in an action brought in the name of the state by the Attorney General for refund. Such action shall be brought within the time limited by law for the commencement of civil action upon liabilities created by statute other than forfeiture and penalties and the cause of action in such cases shall be deemed to have accrued on the date on which such right of deduction arose.

“Section 10. In addition to the fees now provided by law in Section 2739g-2c, Carroll's Kentucky Statutes, Baldwin's 1936 Revision, and Section 2739g-2d, Baldwin's 1938 Supplement to Carroll's Kentucky Statutes, for the registration and licensing of passenger automobiles and trucks, there is hereby imposed and levied an additional annual license fee of One Dollar (\$1.00) on each such vehicle as described in said Statutes to be collected by the county court clerks, as such other license fees are now collected, and to be charged on the certificate blanks for registering such vehicles; and there is hereby set up in the Department of Finance a special amount to be known as the “Hospital Fund for Indigents,” and out of which fund the claims herein provided for shall be paid.

“The county court clerk shall remit monthly to the Department of Finance the special One Dollar (\$1.00) tax herein provided for, and such funds so received by the Department of Finance shall be credited to the special fund herein created and provided for, the county court clerk shall in all other respects be governed by the laws relating to the collection and remittance of said license fees.

“The Commissioner of Finance is hereby directed and empowered to pay out of said funds the claims herein provided for upon the order of the Commissioner of Health. The One Dollar (\$1.00) fee herein provided shall be collected on all 1941 applications and thereafter for registration of passenger automobiles and motor trucks, and the special fund herein provided for shall not be set up until after January 1, 1941, and no claims shall be allowed until after that date.

“Section 11. All laws or parts of laws in

conflict herewith are hereby repealed.

"Section 12. If any phrase, clause, sentence, or paragraph of this Act should be held unconstitutional, such unconstitutionality shall not be deemed as invalidating any of the other parts of this Act."

"We were particularly fortunate during this Session of the Legislature in having the sympathetic approval of the Governor of the Commonwealth and the State Administration and we also desire to express our special gratitude to three Senators who are physicians, Drs. O. F. Hume, David H. Bush, and R. A. Byers, and to the Speaker of the House, Dr. Ben F. Shields, of Spencer County, all of whom were of very great assistance in all medical and health legislation. It is difficult for the members of the profession to realize the sacrifice made by members of the profession in taking the necessary ninety days from their service to the public as physicians, to represent their districts in the House and Senate.

"At the last Session of the House of Delegates, we reported on the status of the proposed National Health legislation. After the several hearings on the Wagner Bill, which demonstrated so definitely the objections we had raised, this Bill was sent back to the committee for further study. The only action which has so far been taken is the reporting of the bill for the extension of hospitals in needy areas over an experimental period of six years. This bill, as drawn, was approved by the American Medical Association and the American and Catholic Hospital Associations. After hearings, it was much improved as a result of testimony from representatives of these organizations. Unfortunately, when presented to the Senate, a few amendments were offered and voted from the floor without discussion, largely destroying the usefulness of the bill. It was, however, passed unanimously by the Senate. It is now pending before the Committee on Interstate and Foreign Commerce of the House. So far, no hearings have been held, but it is confidently anticipated that the harrying amendments will be removed. Even with such improvement, it is doubtful that this legislation will be considered at the present time due to the National Defense Program, and we will be very frank in saying that it would probably be better to defer its consideration indefinitely.

"At the recent Session of the House of Delegates of the American Medical Association in New York, the Surgeons General of the Army, Navy and the United States Public Health Service presented certain recommendations on medical preparedness

in connection with the National Defense Program, and these recommendations were unanimously approved and state committees on the subject have been approved.

"As our own committee will make a report, it is unnecessary for us to go into the matter further, except to say that the medical profession is ready now, as it has been throughout the history of our country, to do whatever is necessary, to make whatever sacrifices are needed for the defense of the country we love and the people we serve.

"Respectfully submitted,

"Irvin Abell, Chairman."

PRESIDENT SCOTT: A splendid report, and there are many important matters in it.

SECRETARY McCORMACK: I move the approval of the report.

The motion was seconded and carried.

PRESIDENT SCOTT: The report will stand approved and will be published in full in the JOURNAL.

The report of the Committee on Woman's Auxiliary will be passed until this evening.

Report of the Committee on Commercial Exhibits, C. A. Vance, Chairman.

SECRETARY McCORMACK: I will say for Dr. Vance that they speak for themselves and it is very important that all the members see them; they pay the bill for the meeting.

PRESIDENT SCOTT: Thank you, Dr. McCormack, they do, and it is very important to be sympathetic and attentive to these exhibits.

The next is the report of the Committee on the McDowell Memorial, also by Dr. Abell.

"During the year, the Ephraim McDowell-Jane Todd Crawford Memorial Home has been in successful operation in its management by Mrs. Letitia S. McDowell, the Custodian. We have had the very complete cooperation and support of Governor Keen Johnson and General Bailey P. Wootton, the Director of Parks of the Department of Conservation, and we desire to express our special appreciation to them.

"The proceedings of the dedication of the Ephraim McDowell-Jane Todd Crawford Memorial Home were published as a special supplement of the November issue of the Kentucky State Medical JOURNAL at a cost of \$496.13. We have purchased some books and other items connected with Dr. McDowell at a cost of \$131.43, and recently we have been able to secure the Davenport portrait of Dr. McDowell which was painted sometime during the period 1820 to 1822. We are now having the portrait cleaned and restored and will have it ready for

presentation to the Home during the sessions of the Southern Medical Association at Louisville in November.

"We were able to purchase the portrait from the great granddaughter of Dr. McDowell, Mrs. F. B. Allen of Okeene, Oklahoma, because Mrs. Allen was anxious to see it restored to the Home, so sold it to us when she could have sold it for several times the one thousand dollars for which she let us have it. We recommend that the Association express to her its appreciation for her generosity in disposing of it to us.

"Recently, Dr. Vance secured information which has given us hope that we may be able to find at least a portion of the original library of Dr. McDowell, and also the Jouett portrait. We are pursuing our investigation as to the present ownership of these priceless mementoes which would be so interesting in their original setting.

"Several organizations, including the Danville Chapter of the Colonial Dames, and the Daughters of the American Revolution, are undertaking to refurnish certain of the rooms at the Home. We recommend the Association petition the Governor and General Wootton to issue instructions that no furniture, portraits or mementoes connected with any other person than Dr. McDowell, or which are not period pieces, shall be permitted to be placed in the Home. It is very important that we should not make the Home a collection place for all sorts of pieces of furniture. It is our desire to restore it to its original comfort and dignity befitting the great man and woman whom we honor.

"Last year we published the full list of custodians of the Home. With the addition of Dr. Henry Cave, New York City, we now have ninety-nine. Under the charter, the number is limited to 150. It will be noted from the financial statement that at present there is a deficit of \$1775.71 in the Memorial Fund. As new custodians are secured to fill in the roster, this deficit will disappear. We want to call this to the attention of the membership now, because the bronze plaque which will contain the names of the custodians will be cast as soon as the roll is complete.

"Minutes of the meeting of the Custodians of the Home, which followed the dedication of the Home, read as follows:

"Following the dedication of the Ephraim McDowell-Jane Todd Crawford Home on May 20, 1939, at Danville, Kentucky, the Custodians met at 6:30 p. m. in dinner session at the Gilcher Hotel. Dr. J. Rice Cowan, resident Custodian, presided.

A representative group of Custodians attended.

"After discussion of finances of the Memorial, motion was made by Dr. A. T. McCormack, seconded by Dr. E. L. Henderson and unanimously passed, that Dr. E. V. Mastin, St. Louis, Missouri, great, great grandson of Dr. McDowell, become honorary and hereditary member of the Executive Board for life, and that this position be continued as long as there are descendants of Dr. McDowell in the medical profession.

"Upon motion of Dr. E. L. Henderson, seconded by Dr. Frank Boyd and unanimously passed, the following were elected chairmen and members of the Executive Board of the Custodians:

"E. V. Mastin, M.D., St. Louis, Honorary Chairman.

Irvin Abell, M.D., Louisville, Chairman

Emil Novak, M.D., Baltimore

Louis Frank, M. D., Louisville

C. A. Vance, M. D., Lexington

J. Rice Cowan, M.D., Danville

A. T. McCormack, M.D., Louisville.

"After full discussion it was moved by Dr. Abell, seconded by Dr. J. B. Lukins, and unanimously passed, that no memorabilia should be included in the House except that intimately connected with the life of Ephraim McDowell or that of Mrs. Jane Todd Crawford, or articles of that same period and used in the same neighborhood. The Executive Board was definitely instructed that this is a memorial to Dr. Ephraim McDowell and Jane Todd Crawford, and their associates.'

"We recommend that the above recommendations be approved by this Association.

"Your Committee wishes to express its appreciation to the Woman's Auxiliary for the fine work it is doing in the beautification of the Jane Todd Crawford Trail from Mrs. Crawford's home in Greensburg to Danville. The citizens of Greensburg are preparing to erect a stone marker on the Trail near the site of the original cabin, and also hope to build a duplicate of the cabin. Flowers, shrubs and seeds have been sent to the Auxiliary from practically every state in the Union, and are being distributed to homes along the sixty-four mile Trail for roadside planting. Dr. W. B. Atkinson, of Campbellsville, has made a motion picture of the Trail, which will be exhibited during the sessions of the Woman's Auxiliary.

"The total cost of the Memorial to date to the Association and its cooperating physicians has been \$14,595.88. We feel that this

restored home is one of the shrines of American medicine. When its refurnishing has been completed, we are confident the number of visitors will increase greatly.

"Your Committee has had the technical services of Mrs. Eleanor Hume Offutt, possibly Kentucky's most distinguished antiquarian, in the selection of the Home furnishings.

"Respectfully submitted,

"Irvin Abell, M.D., Chairman."

PRESIDENT SCOTT: Next is the report of the Committee on Medical Education, by Dr. Scott D. Breckinridge. Dr. Breckinridge was here a while ago, but had an urgent call to the hospital, so we will pass that.

Next is the report of the Heart Committee, by Dr. John Harvey.

JOHN HARVEY, Lexington: I have Dr. Breckinridge's report here.

PRESIDENT SCOTT: We will ask Dr. Harvey to read it, then.

"The Committee on Medical Education, having duly considered the problems of medical education both as they exist in the State of Kentucky and through the nation at large, desires to submit the following report.

"It is felt that the rearrangement of the curriculum at the Medical Department of the University of Louisville so as to extend instruction in psychiatry and in public health medicine throughout the four years of the medical course, is worthy of special comment. That additional instruction in these two important subjects is desirable will probably be accepted without argument. Whether it has proved possible to add this instruction to an already heavily loaded curriculum without material neglect of other important subjects may have been declared already or may be a matter for further observation.

"The general subject of the education of the physician may be divided into four periods, that of basic, cultural education, that of pre-medical craft education, that of strictly medical education, and that of post-graduate craft training. With the intrusion, or seepage, of craft education into the pre-medical years, the cultural education of the prospective physician has become almost abandoned. With the extension of post-graduate craft training by the requirements of the various national examining boards to three, four, or five, the years of training have been gradually extended until, with a life expectancy of about sixty years, the physician must spend thirty years in training for thirty years of practice. With a large proportion of new

graduates planning to follow one or another of the specialties, it would appear very important that organized medicine should give careful scrutiny to this steadily increasing burden of preparation. Certainly, little can be done about the content of the preparatory years. Deplorable, even if necessary, sacrifices have already been made in the cultural field. It would seem that any hope of saving must lie in a study of the time element. Here, a very interesting picture immediately presents itself. We find an educational system based upon the needs of a rural population, where summer found the boys and girls needed to help in the work on the farm. Today, with the population largely urban, we see grammar and high school students continuing to attend school about one day out of each two in the calendar year and college and medical students scarcely raising the rate to two days out of three. There may be good reasons why the younger children should not be kept in school the year around. There seems little excuse for continuing this usage into senior high school and college. If it were abandoned and the school year made to correspond to the calendar year from senior high school on, dividing the year into four trimesters instead of the present misnamed two semesters, giving one week of vacation at the end of each semester and adding a half day Saturday in high school, something over three years (probably nearer four) would be saved between the day of entering senior high school and graduating from medical school. It is foreseen that such a course would meet with violent opposition from the teachers in the schools and colleges. But this, or some better answer, must soon be found to what is rapidly becoming an impossible situation.

"Respectfully submitted,

"(Signed) Miriam Bell

R. Arnold Griswold

Scott D. Breckinridge."

PRESIDENT SCOTT: You have heard this report. What will you do with it?

SECRETARY McCORMACK: I move it be approved.

The motion was seconded.

PRESIDENT SCOTT: I wrote two or three medical education reports myself. I hate to see them passed like this because it is just whistling to the wind. Those very many important and pregnant suggestions in this report of Dr. Breckinridge's I do wish in some way could become more effective than being read to this small group. I don't suppose they can.

SECRETARY McCORMACK: It will be read in the JOURNAL.

PRESIDENT SCOTT: Oh, yes.

SECRETARY McCORMACK: Of course, following Dr. Scott's reports when he made them as Chairman, he also discussed them, which made them very much more lucid.

PRESIDENT SCOTT: And asked for a vote. This report will be accepted.

The motion was carried.

PRESIDENT SCOTT: Next is the report of the Heart Committee.

JOHN HARVEY, Lexington: The Heart Committee is pleased to report certain activities by a small group of physicians in Kentucky that should promote advances in our knowledge of the incidence of heart disease among the children and result in earlier and therefore more effective treatment of the rheumatic type of heart disease.

Dr. Philip F. Barbour, in cooperation with the U. S. Children's Bureau, held a conference with a number of pediatricians and cardiologists for the purpose of discussing this problem and it is planned to make recommendations to the Crippled Children's Commission when sufficient data is accumulated.

Dr. Barbour has also made a number of addresses before certain civic organizations in which the importance of the early recognition of chorea and rheumatism was stressed.

Dr. Weiss has made a study of the incidence of rheumatic and congenital heart disease among the school children of Louisville.

There is undoubtedly other laudable work being done in the state, of which your committee is unaware. It is hoped that our Association will encourage the good work that is being done.

Woodford B. Troutman

Morris M. Weiss

John Harvey, Chairman.

PRESIDENT SCOTT: This report will be accepted and filed.

I am going to ask Dr. Garr to make his report on Crippled Children because he has to leave.

CHARLES C. GARR, Lexington: During the fiscal year beginning July 1, 1939, and ending June 30, 1940, the Kentucky Crippled Children Commission, which is the official state agency for the treatment of crippled children whose parents are financially unable to pay for their care, provided hospitalization and orthopedic appliances for 1,441 individual cases. This was the largest

number of cases ever treated by the Commission in any one year.

As many cases were handled more than once, some receiving as many as ten services or periods of care during the year, services rendered to patients totaled 2,331. This was an average of 194 services per month, which was nine more per month than the average for the preceding fiscal year. Services include hospitalization, braces, corrective shoes, x-rays, and special treatments. The total may be broken down into the following items: 1,306 individual cases were given hospital care, but as many were hospitalized more than once, total hospital admissions were 1,381. Of this number, 433 cases were admitted for the first time; 377 had been treated by the Commission prior to the beginning of the fiscal year, and 496 cases were admitted more than once during the fiscal year.

Services not requiring hospitalization, such as application of braces, etc., were provided for 1,025 children, of which number 204 had never been treated before, and the remaining 821 had received previous treatment from the Commission. The total number of new cases handled during the year was 637. Cases previously treated and readmitted for further treatment during the fiscal year numbered 804, making a total of the 1,441 cases reported above.

The per capita cost for treating this number of cases was \$140.15.

During the fiscal year, itinerant clinics were held in the following localities: Maysville, Prestonsburg, Middlesboro, Greenville, Harrodsburg, Bowling Green, Mount Sterling, Ashland, McKee, Manchester, Owensboro, Harlan, Columbia, Paducah, Newport, Bardstown, Richmond, Shelbyville, Irvine, Hardinsburg, Pikeville, London, Barbourville. One thousand eight hundred and seventy-five crippled children were examined at these clinics, which served ninety counties. Monthly clinics are also held in Ashland, and weekly clinics in Lexington, two of the three hospital centers in the state. There were 811 examinations at these weekly and monthly clinics, making a total of 2,686 clinic examinations for the year.

Louisville, where the Commission's office is located, is the third hospital center. During the year, 1,631 visits of patients were reported in the Commission's office. It can easily be seen from the above figures that the Kentucky Crippled Children Commission handles a tremendous volume of work in a year's time. Six graduate public health nurses in addition to the director compose the Commission's field staff.

Splendid cooperation is received from the members of the County Health Departments, whose directors and nurses assist in locating crippled children, in promoting clinics, and providing necessary follow-up supervision for treated cases. The Commission is indebted to Dr. A. T. McCormack, State Health Commissioner, and to all members of his staff, for their able assistance.

The Commission also acknowledges with gratitude the interest of the Kentucky State Medical Association and the members of the medical profession, who over a long period of years have generously and untiringly given of their skill and services to help the Commission and Kentucky's crippled children.

SECRETARY McCORMACK: I move we approve this report.

The motion was seconded and carried.

PRESIDENT SCOTT: Dr. Aud will make his report for the Committee on Medical Ethics.

F. GUY AUD, Louisville: Your Committee on Medical Ethics, having only recently been appointed, realizes its inability to familiarize itself with the many problems of medical ethics concerning the practice of medicine in Kentucky.

Attention of the Committee has been called to the lack of proper regulations for the control of itinerants, and occasionally of reputable physicians who establish offices in two or more localities at the same time for the practice of medicine.

The Kentucky State Medical Association adopted and is governed by the Principles of Medical Ethics of the American Medical Association. This is highly desirable from many viewpoints and should be the practice of every component society, since the county medical society is the door to membership in the constituent state medical association and in the American Medical Association.

At the 1939 meeting of the House of Delegates of the American Medical Association in St. Louis, the California delegation introduced a resolution which was adopted and referred to the Reference Committee on Amendments to the Constitution and By-Laws and later to the Judicial Council, calling for study and revision of the Principles of Medical Ethics. The Council was directed to report its recommendations to the 1940 session of the House of Delegates.

The Judicial Council in its report this year stated that "Attention is usually called by those who seek a rewriting of the Principles of Medical Ethics to the fact

that the present principles were formulated in 1903 and that times have changed since then. The argument is presented that to keep up with progress in other fields of endeavor as well as with the science of medicine, the ethics of medicine should change and become up to date. It is either forgotten or not realized by these advocates of change that the Principles of Medical Ethics is but a statement of the underlying principles of conduct which apply to the relation of every physician with his patients, with the public, and with his fellow-doctors of medicine. The principles are not laws to govern actions in detail but to guide conduct. The basic principle underlying all ramifications of a doctor's professional life is stated in the opening sentences of the published Principles of Medical Ethics: 'A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.' That has been the basic principle of medical ethics since the time of Hippocrates. Medicine's methods may change, its economics may change, its science may change, but its principles of ethics do not change any more than do the basic principles of the Christian religion. Government and law may disrupt and negate the operation of our Principles of Medical Ethics for a time or in part, but it always will remain the principles of right conduct for our profession and will prevail just as long as government and law permit."

The Judicial Council did not recommend revision and liberalization of the Principles of Medical Ethics in accordance with the resolution of the California delegation.

Your Committee on Medical Ethics respectfully submit for your consideration the following recommendations:

1. That the Kentucky State Medical Association continue to be governed by the Principles of Medical Ethics of the American Medical Association.

2. That the Judicial Council of the American Medical Association be commended for its action on the proposed changes in the Principles of Medical Ethics.

3. That suitable regulations governing the practice of itinerants within the state be adopted.

Respectfully submitted,

James A. Orr,
James C. Graham,
Guy Aud,
Chairman.

PRESIDENT SCOTT: What action shall we take on this excellent report?

PAUL S. YORK, Glasgow: I move that the report be accepted.

The motion was seconded and carried.

PRESIDENT SCOTT: The next order is the report of Dr. Gardner's committee. I think it is improperly referred to here. He will describe his own committee. What is the title?

W. E. GARDNER, Louisville: Advisory Committee to the Division of Hospitals and Mental Hygiene. You will recall from our report last year that the Advisory Committee to the Division of Hospitals and Mental Hygiene was created at the time of the Louisville meeting, and I made a report on some of the activities of the Division of Hospitals and Mental Hygiene at the Bowling Green meeting. Many of the things that were outlined at that time have been put into actual effect. There has been a constant improvement in the service in the state hospitals and institutions for feeble-minded, and the laboratory facilities have been completed, the x-rays have been over-hauled, new ones have been purchased, there has been an increase of nursing personnel, and there has been a strong effort throughout the past year to get the best professional personnel throughout all the hospitals, and while our committee is not a part of the Chandler-Wallis Act, Governor Johnson has very gracefully accepted our committee as his Advisory Committee. I think this was at the suggestion of Dr. McCormack. Our committee had a meeting with Governor Johnson Christmas Eve of last year, at which time he asked many questions about the institutions, and he was particularly interested in getting started some physical improvements, and in addition to the regular appropriation which had been made for the institutions he had authorized the expenditure of a sum approximating \$350,000 for very much needed physical improvements, that is heating plants, plumbing facilities, laundry, and improvement of the equipment on the wards, floors, plastering, paint, and things of that sort. This estimate had been made by Dean Graham of the School of Engineering of the University of Kentucky, and Dean Graham told me today that perhaps within another year as much as \$200,000 of this money will have been utilized in these improvements, but there is a total authorization of more than \$350,000, so this will be a considerable help in the improvement of the physical plants of the institutions.

Time does not permit that we go into various advancements that have been made

in the services. I have personally been in touch more intimately with the Central State Hospital lately, and Dr. Bell of Hopkinsville and Dr. Howard have seen the progress at the Western State Hospital, and Dr. Ernest Bradley, a member of the committee, has been in touch with the Western State Hospital here. The other members of the committee are Dr. Abell, Dr. McCarty and Dr. McCormack of Louisville.

We hope, as time goes on, to have more frequent meetings of this committee. We are, of course, at the call of the Governor or the Director of Hospitals and Mental Hygiene whenever things of importance come up.

As to the question of appointment of physicians in the hospitals, our committee has tried to avoid making specific recommendations as much as possible. We are interested in the qualifications of the physicians who are appointed, but we have tried to avoid too much interference in the selection of personnel. That is a responsibility of the Director of Hospitals and Mental Hygiene and of the Superintendents, and we feel that they should have as free a rein as possible without much outside interference, although we are glad to confer with them, give advice whenever it is requested.

One of the more recent developments in the service of the Division of Hospitals and Mental Hygiene which was provided for in the Chandler-Wallis Act is the establishment of outpatient clinics and getting on foot a program of mental hygiene in cooperation with the county health units, and if you will pardon me, it will save time if you will allow me to read briefly a part of the objectives of this work. Other members of the committee who are here I shall be glad, of course, to have elaborate on this report. Dr. McCormack may have occasion to discuss this phase.

Outpatient clinics are to be established in the three county health demonstration units which have been set up by Dr. McCormack. The first unit is in Madison County, and the clinic will be held at Richmond; the second unit is in Mason County, and the clinic will be held at Maysville; and the third unit comprises the three counties of Gallatin, Trimble and Carroll, and the clinic will be held at Carrollton.

All these clinics will be held in the office of the county health officer and will not be known as psychiatric clinics, but simply a part of the general clinic facilities at which psychiatric service will be offered.

The objectives are:

1. To discuss the mental health problem cases which have come to the attention of the county health officers, and come to some mutual decision with the county health officer as to whether they should be committed to one of our institutions or whether they could safely remain in the community with such supervision and advice as we might be able jointly to extend them.

2. To interview cases in the community which have been paroled from our mental institutions, and extend such advice and treatment as may be indicated to prevent their unnecessary return from parole.

3. To investigate the actual working of the Pauper Idiot Act in the counties concerned, visiting individual cases which may be brought to our attention by the county health officer.

We have already made some progress in carrying out the three above-mentioned objectives. In the tri-county health unit at Carrollton, cooperation with the judges has resulted in the county health officer, or a representative of his office, being present at every lunacy inquest. Sometimes such inquests result in taking care of the case locally without commitment; and in every case a social service case history is obtained, and, in the event of commitment, mailed to Central State Hospital so that the medical staff at that hospital may have available all pertinent data in the possession of the county health officer. The second objective, that is to interview cases in the community which have been paroled from our mental institutions, and extend such advice and treatment as may be indicated to prevent their unnecessary return from parole, is also in the process of being carried out in this tri-county unit. Also, a start has been made in that unit in carrying out investigations under the Pauper Idiot Act.

In all three of the county units above mentioned, for some time there has been an interchange of information between the county health officer and the clinical director of the hospital in the district which it serves. For example, advance notice of cases about to be paroled is sent to all the county health officers by the clinical directors. This notice covers not only the cases undergoing treatment for syphilis, but also all other cases.

It can be seen from the above brief summary of the objectives of these clinics that it is not our intention to offer outpatient psychiatric service at the present time to the general public, except in so far as supervision of paroled cases is concerned,

and, whenever possible, to prevent the commitment of cases which are not clearly in need of institutionalization.

On September 1, 1940, Dr. A. R. Kasey, Jr., Assistant Director of the Division of Hospitals and Mental Hygiene, together with Miss Eleanor Burks, Liaison Officer, were detailed to spend the major portion of their time in carrying out these plans, which have involved some transfer within our own personnel, but no increase in the pay roll nor any increase above the \$200 a month travel allotment of the central office, which, up to the present writing, has averaged less than \$100 a month.

The plan is made possible by the active cooperation of the State Department of Health, and it is proposed to extend it from the three above-mentioned units to other counties gradually, as ways and means are developed.

Dr. Wilson asked me to call your attention to an announcement which has already been made in the *State Medical JOURNAL*, that there will be a psychiatric institute held at the Central State Hospital at Lakeland, beginning next Monday, that will be the 23rd of September, and continuing for two weeks. Several outstanding psychiatrists from prominent medical centers throughout the country have been scheduled to speak at this institute. There will be lectures and demonstrations in the morning and afternoon and evening, and any of you who are interested will be welcome to attend. It is not only a refresher course, but many matters of importance and new developments in the diagnosis and treatment of psychiatric disorders will be set forth by men who are outstanding authorities on these subjects. I trust that you will bear that in mind.

Before closing, our committee in its session today considered the following resolution, which has been submitted to members who are still here and meets with their approval, in reference to the resignation of Dr. J. G. Wilson, who came into the state, you understand, two years ago, was first loaned to the state by the United States Public Health Service for a few months, and then appointed outright July 1, 1938, and he has been serving continuously. You probably have noticed from the daily press that he has recently tendered his resignation to take effect on or about the first of January.

"Your committee announces with regret the resignation of Dr. J. G. Wilson, Director of the Division of Hospitals and Mental Hygiene, State Department of Welfare, to become effective January 1, next. Dr. Wilson came to Kentucky at the invitation

of Governor A. B. Chandler, to assist in the rehabilitation of our hospitals for the care of the insane and the feeble-minded, after many years of neglect. As a result of his intelligent professional leadership, more improvement has been made in the professional personnel and scientific plants in these institutions than had been done since they started under political control in 1896.

"We are extremely sorry to lose Dr. Wilson's services, but he had announced to us upon his acceptance of the position that he would be compelled to retire as soon as he had laid the foundation for the program under the Chandler-Wallis Act, and Dr. Wilson has done a very great service to Kentucky. This Association has a very great responsibility for the preservation and the protection of that program." This has already been instituted.

"In expressing our gratitude to Dr. Wilson, we desire also to express our confidence in Governor Johnson's attitude toward the state institutions, and we propose to assist him in seeing that they are conducted in the future on a high plane such as has been done during Dr. Wilson's administration.

"Your committee recommends that Dr. Wilson be made an honorary life member of the Kentucky State Medical Association.

"Respectfully submitted.

W. E. Gardner, Chairman."

SECRETARY McCORMACK: I move the report be accepted and Dr. Wilson be elected an honorary life member of this Association.

The motion was seconded and unanimously carried.

PRESIDENT SCOTT: We have the pleasure of receiving Dr. Wilson as an honorary life member of this Association.

The next order is the report of the Committee on Control of Cancer, by Dr. Massie, of Lexington.

FRANCIS M. MASSIE, Lexington: Your Committee on the Control of Cancer has not a long report. Your work in the State of Kentucky has been carried on through the usual agency, the Women's Field Army for the Control of Cancer. The work of the Women's Field Army has been divided into two main divisions, the educational field, which has been very effectively carried out through radio talks, personal addresses, pamphlets, the distribution of informative literature in hotels and hospitals and other public places, and the second half of the campaign concerns itself with what we are going to do with the people who have been properly dis-

turbed by the educational campaign, and that is a very real problem, not only in Kentucky, but throughout the United States. The numbers of people coming in for examination, not only to the free places, but to their own private doctors, have been tremendously increased by the work of the Women's Field Army, and that is a very important point to realize.

What are the people who are indigent and not able to pay for this sort of service going to do if we alarm them by newspaper articles and radio talks? So far we have not been able to do anything except what privately we have been willing to give, but fortunately during the past year the Women's Field Army has undertaken to raise a sum for the diagnosis, treatment and hospitalization of indigent people. The amount raised so far is pitifully small, for this purpose only \$3,250 out of a sum total of \$10,564 raised in the state all together, but only a little over \$3,000, for four beds. A bed, as I previously said, includes the diagnosis, whatever diagnosis means, and hospitalization and treatment, and it is very difficult to treat the indigent cancer people in the State of Kentucky on \$3,200 a year, including hospitalization. That leaves us with a problem, begun but not solved.

How are we going to raise sufficient funds for this purpose? I don't know, unless the Women's Field Army can raise it. But this I do know, that we as doctors have got to help not only in the educational field, not only giving our time in the diagnosis of cancer and the therapy of cancer, but we have got to raise money too, and it has been very forcibly brought to my attention by the Women's Field Army that their job will be a whole lot easier in raising money if we as a society or as individuals or as local societies will contribute not only our time and help but also our money. They very wisely point out that our work has greatly increased by reason of their educational appeal, that the money that we have made has been somewhat increased, you will have to admit, by these educational efforts, and that they advise us as individuals, or in any way we wish, to contribute to the cancer fund in money as well as in time, and I think it is important.

Briefly, four beds will be endowed for a year—"endowed" is the wrong term, the money has been raised to support these four beds on \$3,250, three in Louisville and one in Lexington during the coming year. That money, of course, will last only a year, or a part of a year, depending upon how many patients each of these beds receives. It is the hope and plan of the Women's Field Army and your committee

that other beds will be established in Ashland, Paducah, in other points in the state where people will find them readily accessible, but the committee wishes to remind this House of Delegates once more that some individual appeal will be made during the coming year to you probably as units of a local organization in your own county to raise funds to help with the hospitalization.

A formal report will be handed to the Secretary which will include what I have said and a good deal more in the way of figures.

PRESIDENT SCOTT: Do you move the adoption of your report?

F. M. MASSIE: I do sir.

SECRETARY McCORMACK: I second it with a great deal of enthusiasm. I was very much interested in this report. The State Department of Health was instructed, several years ago, to hold diagnostic cancer clinics in various parts of the state. We have sought the funds with which to do this and have not received them. Until we do it, of course we can't do it, but it is really a pitiful thing to see the number of unnecessary deaths that occur from undiagnosed and untreated cancer in the state. I hope very much Dr. Massie's recommendation will receive the thoughtful consideration of the members of the House and the members of the profession.

PRESIDENT SCOTT: Is there any further discussion? All in favor of the adoption of this report indicate by saying "aye"; opposed "no." It is adopted.

Mrs. Madeline Breckinridge many years ago made it a practice, whenever she made a committee report, to move its adoption before she sat down. It stands to reason that anyone who is making a report is for it and it would certainly facilitate the business of a House like this if the man who presents the report would end by saying, "I move the adoption of this report." He is for it and he can move it the same as anybody else, and then somebody else can second it and we don't have to call for it.

F. M. MASSIE: May I rise to a point of order, that not being a member of the House of Delegates I don't believe I have a right to make a motion.

PRESIDENT SCOTT: Your point is well taken. Such of you as are members of the House of Delegates may do that.

Next is the report of the Obstetric Advisory Committee, Dr. Higdon, Paducah, Chairman.

LEON HIGDON, Paducah: This Committee is an advisory body to the State Department of Health and its Bureau of

Maternal and Child Health. It is subject to call at any time by the Commission of the State Department of Health. Individual members of the Committee have been called during the year to aid in problems relative to the following:

(1) Maternity nursing service in ten selected counties.

(2) Incubators in county health departments.

(3) Trend of the maternal death rate in Kentucky.

(4) Preparation of instruction to county health departments.

(5) Preparation of examination questions for nurse-midwives, Frontier Nursing Service.

Since 1937 ten county health departments have had, in addition to the regular nursing staff, special nurses in the field of maternity. These counties were carefully chosen on the basis of the need of such services. That is, the maternal and infant death rates were higher than the state rate over a period of years, so that additional help to reduce these rates was deemed necessary. Also, there was an adequate number of practicing physicians in each of the counties, so that a doctor could be available to each woman in confinement.

Before these services were established in any county, the local medical society was made cognizant of the program, its plans and policies, and there was free discussion of such a program. Final decision as to whether or not such type of service was to be inaugurated in a given county was determined by the county medical society.

The purpose of the maternity nursing service is to provide nursing care during the antenatal, natal and post-natal periods to all medically indigent mothers. This service is to be rendered only within the confines of the county in which the service was established as a further means of educating the expectant mothers to the need of prenatal and postnatal care for themselves and for the infants.

The maternity nursing service in the ten counties is to be given to these mothers who are registered with the county health department by a private physician at least four months prior to delivery. The nurse may assist the physician, even though the patient is not registered, if a real emergency exists. The nurse is in attendance only at delivery during the time the physician is present.

The frequency of the antepartum nursing visits will be determined by the need of the individual patient. If possible, postpartum visits will be made on the third and sixth days and fourth week.

At these visits, proper advice and instruction are given for the care of mother and infant. At the postpartum visits, in particular, there is excellent opportunity for educating the mother in ways of safeguarding her own and the infant's health, and the necessity of her and the baby remaining under medical direction.

Approximately 4,000 births have come under the supervision of the maternity nursing services since June, 1937. Two thousand and thirty-one cases or approximately 50 per cent of the 4,000 were attended at delivery. Out of the total number attended at delivery, 1,348 or only 66 per cent had received prenatal nursing visits. This means that despite the policies drawn up, 683 mothers or 34 per cent of the mothers receiving delivery services had not had prenatal nursing care. Less than half of the cases receiving prenatal care were registered before the sixth month of pregnancy. The statistical data available is not adequate enough to draw conclusions. There are, however, indications that maternal and infant death rates are lower than in the remaining cases of the county and lower than the state rates.

Where the maternity nursing services are established they have been met with the wholehearted approval of the medical profession.

INCUBATORS: One of the greatest problems in the state is the high death rate among infants attributed to prematurity. In the statistics of infant deaths, more than 50 per cent are listed as premature births. There is need of more detailed data on the causes of prematurity, and these needed facts can be supplied by the attending physician. It would materially aid in ascertaining the true cause of premature deaths if the physician would give all the known contributing factors.

Incubators are available in all county health departments in the state. This is the means by which the State Department of Health and the Pediatric Committee are aiding in caring for premature infants. Interesting stories are told of the recovery of infants born prematurely. The following experience from one of the counties is given as an example of the use of incubators.

"Very little excitement was caused by the arrival of the particular incubator destined for use in the county. It is true, there were a few moments of spirited discussion over who would pay the express charges, but this was settled quickly.

"Later on in that same day, a local physician called excitedly for help in preserving the lives of prematurely born triplets. The

local hospital had no facilities for this sort of emergency. The county health department nurse took the newly arrived incubator quickly to the home of the three new infants. Obviously, so many new babies could not be crowded in this one incubator. The NYA man and the State Department of Health man had not considered this sort of thing in their planning. The two smallest were put in side by side, while a member of the health department staff made a hurried trip to an adjoining county for another incubator. On his return, the third infant was placed in its new warm surroundings. That the infants were small was shown when the grandmother's ring was passed over the foot and around the ankle of one of them.

"A special difficulty presented itself in substituting something for electricity. Heated stones and bricks were used. A full-time private duty nurse was hired by the county to see that everything went smoothly.

"No sooner were the triplets well settled in their new homes, than another physician called for help in preserving the life of a fourth premature infant. This time a member of the health department staff went to a county in the other direction for another incubator. Because of the extreme immaturity of this latest infant, it did not survive, even though it had the advantage of modern care. The incubator was returned.

"After two days the telephone brought news of more premature infants, this time twins. More scurrying was necessary to provide incubators. The staff dreamed about incubators. Then to climax it all, there came a seventh premature child needing incubator care. It was thought for a time that the entire NYA output would be necessary. By doubling up and by substituting makeshift appliances for the stronger infants, all were able to receive care.

"Because of the newness of these appliances they were viewed with suspicion by some of the patients in remote parts of the county. It is believed better results will be obtained as their benefits are proved.

"As an example of these superstitions, the father of the triplets would not allow heated bricks to be used, since he believed they would set the house afire. Heated stones, however, were believed to be perfectly safe.

"After six weeks, all the infants remaining are living without artificial appliances. Both twins and two of the triplets survived."

The Committee wishes to place on file,

but not to read, a condensed study of maternal mortality in Kentucky. A more detailed version of this study is available through the State Department of Health.

MATERNAL MORTALITY IN KENTUCKY
A STUDY OF PUERPERAL DEATHS
1932-1939

Deaths among women from causes directly or indirectly associated with child-bearing have long presented a serious problem to the medical profession. Spectacular progress in the reduction of death rates from many causes has not been paralleled by a decline in the deaths from puerperal causes.

The data presented here is a condensation of a detailed study of maternal mortality in Kentucky. The problem defined is that indicated by death certificates. The figures are necessarily crude and are unavoidably subject to error. They reveal facts merely as they appear in numbers. But these numbers indicate, beyond question, the presence of a disturbing situation which should be of searching concern to the medical profession and society in general.

The maternal death rate in Kentucky has shown only a slight decline since 1911. The rate for 1939, 4.1 maternal deaths per 1,000 live births, is the lowest in the history of registration in the state. Although the state rate has been consistently lower than that for the United States as a whole, the deadline in Kentucky has been only 2.4 maternal deaths for each 1,000 live births in a period of eighteen years.

hospitals, where they presumably receive better care. In 1935, 48% of the total deliveries in the state were made in hospitals. Of the total rural deliveries, only 1.5 per cent were made in hospitals. It should be remembered, however, that many rural mothers are delivered in urban hospitals. Consequently, the maternal mortality rates for urban and rural women, based upon data tabulated by place of occurrence of births and deaths contain errors of unknown size.

TABLE II

Maternal Death Rates For 1,000 Live Births By Age Groups Kentucky: 1932-1936.		
Age Groups	White	Negro
10-14	18.6*	6.8*
15-19	3.8	9.2
20-24	3.5	7.7
25-29	3.9	11.0
30-34	4.7	13.3
35-39	7.4	12.6
40-44	6.5	31.0
45 and over	11.3*	109.1*
Unknown	8.8*	83.3*
TOTAL	4.7	11.2

* Number of births in these groups is extremely small.

TABLE I

White and Negro Maternal Death Rates by Rural and Urban Areas in Kentucky: 1932-1939

	WHITE			URBAN		
	BIRTHS	DEATHS	RATE	BIRTHS	DEATHS	RATE
1932	45,704	197	4.3	9,444	64	6.8
1933	42,316	196	4.6	8,672	47	5.4
1934	46,819	202	4.3	9,413	69	7.3
1935	45,487	184	4.0	9,338	63	6.8
1936	43,541	205	4.7	9,370	60	6.4
1937	43,557	157	3.6	10,059	79	7.9
1938	47,159	159	3.4	10,897	69	6.3
1939	46,793	169	3.6	10,774	56	5.2
	NEGRO					
	BIRTHS	DEATHS	RATE	BIRTHS	DEATHS	RATE
1932	2,124	14	6.6	1,279	16	12.5
1933	1,890	23	12.2	1,293	19	14.7
1934	2,006	17	8.5	1,151	17	14.8
1935	1,862	16	8.6	1,071	19	17.7
1936	1,919	19	9.9	1074	10	
1937	1,941	8	4.1	1,197	5	4.2
1938	2,102	20	9.5	1,285	12	9.3
1939	2,180	16	7.3	1,235	11	8.9

The above data, derived from deaths tabulated by place of occurrence, show that the Negro urban rates are highest of any observed (Table I). A larger proportion of urban than rural mothers are delivered in

The maternal mortality rates for Negro mothers exceeded those for white mothers at every age except under 14, (Table II). Rates for this particular age group are not reliable because of the extremely small number of births. Ages 10 to 14 are early ages for childbearing, but in this five-year period, 1932-1936, 146 Negro and 493 white mothers between the age of 10 and 15 gave birth to liveborn children. If this age group is disregarded, rates for both Negro and white mothers were lowest in the age period 20 to 24 years (3.5 per 1,000 live births for white, as compared with 27 for Negroes). It is observed that the rate is approximately twice as high for the Negroes.

The maternal mortality rate for the Negro mothers in Kentucky exceeded that for white mothers by 40% for the period 1932-1936. In the Southern States in 1935 the rate for Negro mothers exceeded that for white mothers by 69 per cent, and in the Northern States, by 86 per cent. The greater excess percentage in the Northern than in the Southern States is due essentially to the lower mortality rates for white mothers in the North. The maternal mortality rates for Negroes in the two sections (9.6 for Northern States and 9.5 for Southern States in 1935) are very similar.

Tandy, Elizabeth C. Infant and Maternal Mortality Among Negroes. Journal of Negro Education, July, 1937, page 340.

It is observed (Table III) that the percentage of total maternal deaths is greater than the percentage of total live births beginning in the age group 35 to 44.

TABLE III
Percentage of Total Live Births Versus Percentage of Total Maternal Deaths By Age of Mother
Kentucky—Composite Numbers 1932-1936

	Number Live Births	Percentage of Total Live Births	Number Deaths	Percentage of Total Maternal Deaths
10-14	639	0.2	9	0.6
15-19	44,411	15.4	190	13.2
20-24	85,227	29.7	319	22.1
25-34	111,970	39.0	519	36.0
35-44	42,728	14.9	350	24.2
45 and over	1,357	0.5	20	1.4
Unknown	831	0.3	36	2.5
TOTAL	287,163	100.0	1,443	100.

Several studies have been made to reveal the percentage of certificates reporting puerperal cause but tabulated under some other cause. Report of the investigation made in Cleveland¹ showed 28 per cent of the certificates reporting puerperal conditions were not listed as maternal deaths; 22 per cent in Philadelphia² and 18 per cent in New York City.³ While we cannot apply any of the percentages to Kentucky, this is at least an indication that the problems of maternal mortality is greater than the rates suggest.

TABLE IV
Maternal Deaths By Cause and Percentage of Total Deaths
Kentucky 1932-1936

Cause	White	Percent of Total	Negro	Percent of Total	Total	Percent of Total
Abortion	152	11.9	26	15.0	178	12.3
Ectopic						
Gestation	25	2.0	9	5.2	34	2.7
Other conditions						
of Pregnancy	154	12.1	16	9.2	170	11.7
Hemorrhage	108	8.5	13	7.5	121	8.4
Puerperal						
Septicemia	310	24.4	33	19.1	343	23.7
Puerperal Albuminuria and Eclampsia	167	13.2	18	10.4	185	12.8
Other Toxemias						
of Pregnancy	42	3.3	12	6.9	54	3.7
Puerperal Phlegmasia, alba dolens, embolus, sudden death	4	0.3	9	5.2	34	2.7
Other accidents						
of birth	301	23.7	43	24.9	344	23.8
Unspecified conditions	7	0.6	1	0.6	8	0.5
TOTAL	1,270	100.0	173	100.	1,443	100.0

Puerperal septicemia is the principal cause of maternal deaths, both among whites and Negroes. Approximately one-fourth of the total number of deaths for the five-year period (1932-1936) were from this cause. Age is not an important factor. The rate for the Negro, 2.1 deaths per 1,000 live births, is in excess of that for the white race, 1.4 deaths per 1,000 live births.

The most frequent cause of death, with the exception of septicemia, is the group included under albuminuria and eclampsia.

This classification is defined to include only those kidney and liver disturbances which arise directly as a result of pregnancy and not true nephritis. The differentiation is difficult, as the symptom complex is similar. According to the maternal death certificates, 12.8 per cent of the total puerperal deaths were from this cause. The percentage of deaths from albuminuria and eclampsia was greatest in the 15 to 19 age group (26.3 per cent).

Deaths from puerperal hemorrhage show a tendency to increase with age. Death certificates do not show the segregation of puerperal hemorrhages into postpartum hemorrhages and placenta praevia. Approximately 8 per cent of all the maternal deaths are from this cause.

Other toxemias of pregnancy are comprised mostly of deaths from pernicious vomiting of pregnancy. Deaths from this cause make up 3.7 per cent of the total maternal deaths—3.3 per cent of the total white deaths and 7.8 per cent of the Negro deaths. If characteristics of deaths from abortions were segregated, the true cause of death in some of the cases would probably be found to have been pernicious vomiting.

The number of deaths assigned to phlegmasia alba dolens, embolus, and sudden death are statistically insignificant and are here presented only as a matter of interest. During the 5-year period (1932-1936) there were 6 deaths ascribed to this cause. The deaths from this specific cause represent a fixed and irreducible element in the inevitable deaths arising out of childbearing.

Twenty-four per cent of the total deaths are ascribed to other accidents of birth. Not much can be said about deaths under this caption, because no segregation is made as to the specific causes included under it. Cases in which death was ascribed to the effects of labor and the accidents occurring in its cause, shock associated with operative delivery, rupture and inversion of the uterus, and neglected cases of obstructed labor, are grouped under other accidents of birth.

SUMMARY

1. Although the state maternal death rate has been consistently lower than that for the United States as a whole, the decline in Kentucky has been only 2.4 maternal deaths per 1,000 live births in the last 18 years.

2. The maternal mortality is higher in the urban than in rural areas. The Negro urban rates are highest of any observed (1932-1939).

1. Bolt, R. A. Reduction of Maternal Mortality in Cleveland, Journal of A. M. A., April, 1939, page 1943.

2. Maternal Mortality in Philadelphia, 1931-1932, page 20.

3. Maternal Mortality in New York City, 1930-1932.

3. The maternal mortality of Negro mothers exceeds that of white mothers in each age group. The total Negro rate is more than twice as great as that for the white.

4. The lowest rates observed for both white and Negro were in the age group 20 to 24 years.

5. Indications of other studies are that deaths from many puerperal conditions are not being reported as maternal deaths.

6. Puerperal septicemia is the principal cause of death, being reported in 24 per cent of the total maternal deaths. Puerperal albuminuria, eclampsia and abortion are next in importance as causes of death.

Respectfully submitted,
Leon Higdon.

Mr. President, I move the acceptance of the report.

The motion was seconded and carried.

SECRETARY McCORMACK: I move we stand in recess until 7:30.

PRESIDENT SCOTT: In this hall. We will stand in recess until 7:30.

The meeting recessed at 6:00 p. m.

HOUSE OF DELEGATES

SECOND SESSION, MONDAY,
SEPTEMBER 16, 1940

The second session of the House of Delegates convened at 7:30 p. m., President Scott presiding.

PRESIDENT SCOTT: The first order on the evening program is the reading of the minutes of the previous session.

SECRETARY McCORMACK: I move the reading of the minutes be dispensed with.

The motion was seconded and carried.

Report of the Committee on Periodic Health Examination, Dr. Murray L. Rich, Covington.

SECRETARY McCORMACK: I have that report, Mr. President.

"Your committee believes that a periodic health examination is an important duty of the modern physician. We feel that all favorable publicity intended to convince the public of the advantages of these examinations should be encouraged. Any factor which may be of benefit in the prevention or early treatment of disease is worthwhile, and there can be no question but that these examinations are helpful.

"However, your committee does feel that the medical profession should merely give encouragement to this propaganda. The individual physician should set an example by undergoing such an examination himself and by insisting that the members

of his family do likewise. It is probably true that physicians as a group are more careless of their health than any other group. This fact should be considered as a reflection on their intelligence rather than a mark of their courage and self-sacrifice. We should not ask our patients to do what we ourselves refuse to do.

The next factor your committee would have you consider is the nature of these examinations. It is obvious that a really thorough and complete examination is impossible except in rare instances. The instruments of precision used by the specialist, such as the gastroscope, the cystoscope, the electrocardiogram, and the x-ray, cannot be used by every physician on every patient. Yet to absolutely rule out all disease of the stomach, the kidney, the heart, or the lungs, we must make use of these instruments. What, then, must the general practitioner do when a patient presents himself saying, 'I want a complete examination to find out if anything is wrong with me'? Your committee feels that it is incumbent upon this physician to take a thorough and complete history of this patient. If any symptoms are present or have been present, then the physician is bound to investigate them as thoroughly as possible. In the absence of symptoms he is justified in confining his examination to what he can see, feel, and hear. However, he must realize that latent disease may be present without symptoms and the patient should be made aware of this fact.

"Your committee furthermore feels that there is danger in relying entirely on an examination made once every year or so. The importance of unusual symptoms such as precordial pain on exertion, inter-menstrual bleeding, weight loss, or hemoptysis, should be explained to the patient. For him to understand that these symptoms are significant is more important than it is for him to present himself the first of each June for an examination.

"Finally, your committee believes that the proper person to make these examinations is the family doctor. His knowledge of the circumstances of the family, their tendency towards neurosis, their heredity and their environment, makes him the ideal one for this work. We do not believe that such organizations as the Life Extension Institute, or physicians employed by insurance companies or industrial concerns, are properly suited for this work. The general practitioner, if he is complete in his history taking and careful and thorough in his examinations, is best prepared for

this task. And your committee would urge the general practitioner to do this work thoroughly and carefully, for it is within his power to make it a worthwhile procedure or to make it a waste of his patient's time and money.

"(Signed) Murray L. Rich, Chairman."

Mr. President, I move the adoption of this report.

The motion was seconded and carried.

PRESIDENT SCOTT: Dr. Pritchett, will you give your report on the Pediatric Advisory Committee?

JAMES H. PRITCHETT, Louisville: The Pediatric Advisory Committee to the Bureau of Maternal and Child Health begs to report that the work of the Bureau has been greatly enlarged since the facilities of the Bureau have been increased by the addition of Dr. Philip F. Barbour as Consultant in Pediatrics.

Clinics and conferences on children have been held in Columbia, Hodgenville, Hopkinsville, Greenup, Paintsville, Pikeville, Prestonburg, Williamsburg, Corbin, Harlan, and Milton. In addition, there have been addresses on various phases of children's diseases at Hazard, Louisa, Ashland, Brooksville, Williamstown and Mayfield; and luncheon clubs and P. T. A. clubs have been contacted where possible.

The pediatricians of Louisville and Lexington have cooperated most wholeheartedly and capably in all these programs and have contributed greatly to the success of the meetings. Plans are in preparation for a team of an obstetrician and pediatrician to hold an all-day meeting at strategic points in the state. This service will be enlarged as rapidly as possible, for an outstanding problem in our state is the death rate of mothers and babies, which is higher than in neighboring states. It is especially important to note that the death rate of the premature infants has not declined at all though the death rates for infants under one year of age has shown a satisfactory improvement. However, the neonatal mortality has not been lowered as much as could be desired or expected.

The high mortality from diarrheal diseases is a grave problem. There is need of an intensive study of the bad results in these intestinal diseases and perhaps a campaign of education for the physicians and the public as to the prevention and treatment of diarrhea and dysentery.

The high mortality in the Negro race, both in the early and late childhood periods and among the adult population, has resulted in the fact that the deaths are more

in number than the births, and there is an actual loss in our Negro population which has not been made up by immigration.

A meeting of the pediatricians and cardiologists was held in the spring to make a study of the incidence of rheumatism and cardiac and allied diseases in Kentucky, so that some plans could be suggested for the betterment of these crippled children.

It is hoped that many more of these clinics and conferences can be held throughout the state in the coming year, but the medical profession in the various counties can greatly help if they will express the desire to us to provide such clinics and conferences. It is especially desirable that the laity also shall hear talks on health subjects in a campaign for education of the public.

(Signed by the Committee.)

PRESIDENT SCOTT: What will you do with this report?

VIRGIL G. KINNAIRD, Lancaster: I move it be adopted.

The motion was seconded and carried.

PRESIDENT SCOTT: Committee on Public Health Problems in Education, William F. Lamb, Chairman.

WILLIAM F. LAMB, Russellville: In the public schools, colleges, and universities throughout the State of Kentucky, there are many situations and problems which call for the cooperative attention and services of the private practicing physician and public health authorities.

A summary of the reports of the Committee on Public Health Problems in Education during the past three years indicates that these problems group themselves as follows:

1. Those having to do with environmental sanitation, such as:

(a) The location and supervision of school buildings to provide for protection from health hazards of accidents, noise and nuisances.

(b) Adequate lighting, heating, seating and ventilation.

(c) Safe disposal of human excreta and disposal of garbage from cafeterias and lunch rooms.

(d) Adequate supervision of milk and food services and the protection of water supplies.

2. Those problems having to do with the medical and health service of the teachers and pupils, such as:

(a) The periodic examination of teacher and pupils to detect the presence of communicable diseases and debilitating physical and mental defects.

(b) Prevention and control of com-

municable diseases through immunization and early diagnosis.

(c) Provisions for the correction of remediable defects.

3. In universities and colleges those problems having to do with medical care of the sick.

4. Those problems having to do with the cooperation of school administrators and classroom teachers which involve education for healthful living and the wise use of competent medical service.

Your Committee on Public Health Problems in Education of this year concur with the recommendations of the reports of this committee for the past years. These recommendations in substance are:

1. That every private practicing physician become more actively interested in all public health problems in his local public school, university or college, because:

(a) These pupils and teachers make up a large part of the physicians' private practice within families.

(b) Group living in schools and universities predisposes to the spread of communicable diseases and may thereby be brought back into the family circle.

(c) Only through the cooperation of the private practicing physicians can public health officers, sanitarians and public health nurses work effectively on a community basis within the schools and universities.

As the private practicing physician and the public health workers work together to discover and meet the public health problems in education, as listed above, the educators will put forth every effort and all energy to see that children are taught the American way of using the private practicing physician for guidance in better health and for medical care in illness.

PRESIDENT SCOTT: What will you do with this report?

J. L. Cox, Campton: I move its adoption.

The motion was seconded and carried.

SECRETARY McCORMACK: I would like to ask that Mr. C. P. Loran, Secretary and Manager of the Southern Medical Association, come up to the front and let you see what a good-looking man he is. Now you all know how effective and efficient he is, and I would like you to see him.

PRESIDENT SCOTT: Without objection, we will ask Mr. Loran to come to the rostrum. (Applause) Have you a brief message for us, Mr. Loran?

MR. C. P. LORAN: It is certainly a great pleasure to be with you. I always enjoy coming to the Kentucky meetings. Sitting in this room brought back very pleasant

recollections. A thing happened here that many of you men don't know about and never heard of such a thing happening, it probably never happened before and never will happen again. The Southern Medical Association met in this hotel twenty-seven years ago. There was a tie vote down in Jacksonville, Florida, in 1912. Somebody made a big speech about the Elmdorf Dairy and your fine milk. The speaker was a pretty radical prohibitionist, so he said, "I vote for the milk and the Southern Medical to come to Lexington," and right in this room they presented that man Dr. W. W. Crawford, of Hattiesburg, Mississippi, with a registered Jersey calf. It was in a crate and was wheeled right up to the front of this room. The Elmdorf Dairy made the presentation and up to a year or two ago (I don't know whether it is still the case.) Dr. Crawford of Hattiesburg, Mississippi, had had an offspring of that calf from that time clear down to then, and I suppose he has now. I think that is rather an unusual thing to happen at a medical meeting.

I am certainly glad to be with you. (Applause)

PRESIDENT SCOTT: Is there any discussion of Mr. Loran's case report?

Next is the report of the Committee on Medical Preparedness, Dr. McCormack.

SECRETARY McCORMACK: It has been said frequently and justly that the medical profession is constituted of the best educated, the best trained and the most intelligent group of our citizenship. Our acceptance of this as a statement of facts puts everyone of us under a very great obligation. Daily, we recognize this in our routine of drama, tragedy and even comedy with their problems handed us in the care of the sick or the prevention of disease, requiring of us everything that we have.

It was into a routine session of the House of Delegates of the American Medical Association at New York last June that the representatives of the Surgeon General of the Army introduced one of the most dramatic incidents in the history of the greatest of medical organizations, in a very plain, matter-of-fact presentation from the General Staff of the Army. He asked American Medicine to assume its part in the service brought upon the Nation by the necessity of national preparedness caused by the successive victories of the despotic nations of Europe and Asia, and the resulting threat to the integrity of our representative form of government. The members of the House of Delegates were electrified by the challenge and awed by the solemnity of the occasion; their

response was as immediate as each of you have made to an emergency call. By a unanimous, rising vote, a National Committee on Medical Preparedness was created and we Kentuckians may be proud that its Chairman is our own Dr. Abell, and one of its eleven members is Dr. Fred W. Rankin of Lexington. The officers of the Association were instructed to lay aside all other routine duties for the preparation immediately of a census of the medical profession of the United States, so that there would be available to our Government a carefully studied plan for the selection of physicians in accordance with their training, and capabilities, taking into consideration, in so far as possible, their personal preferences.

It is evident that preparation must be made for medical and health care for three groups, namely, (1) the civilian population, (2) the national defense industries, and (3) the armed forces, the latter including the Army, Navy and Public Health Service.

In the access of patriotic fervor which springs up naturally in every Kentuckian's breast whenever there is a national emergency, it is important that we physicians keep in mind that our feet must be on the ground; we know from experience in the World War that many cities and counties were left with very few, and some with no physicians, to take care of the folks at home. The medical care of people of the State was very much upset. There were a few, and we are happy to say a very few, who kept themselves out of the service and took unfair advantage of their more patriotic colleagues. This time, we hope and we believe every physician in Kentucky will not only be ready but anxious and willing to serve in the place where he can serve best, with the vast majority of us that are at home and in our regular practice. All of us must keep in mind that we are not now faced with general mobilization and that there will be no immediate call for a large number of doctors from civilian service for service with the armed forces. Having this in mind, we should all know that what we are trying to do is to arrange, sensibly and sanely, for whatever greater emergency may develop in the future. It is particularly important that the physicians who have qualified themselves to take care of the necessary industrial practices should not volunteer for service until they have been called upon through organized medicine.

As soon as the American Medical Association's studies are complete for each state, it is the purpose of the War De-

partment to have each State Association through its county societies determine which and how many physicians are needed for civilian service. It is perfectly apparent that in most of the rural Kentucky counties, few physicians can be spared, unless the emergency is much greater than it now is.

Your Committee realizes the difficulty in getting an individualistic profession, such as ours is, to plan, deliberately and cold-bloodedly, what we have done heretofore as haphazard and enthusiastic volunteers.

It is interesting to note that, as of the date of this report, less than 400 of our Kentucky physicians have failed to respond to the questionnaire sent them. We will make every effort to get reports from these so that they too may be properly placed in the census of American physicians. It would be a matter of great regret to this Committee if any really good physicians should be called to a place that was utterly distasteful to them because they had failed in their duty to themselves and their country by not making a response and helping to place themselves where they belong.

Your Committee desires to express its profound gratitude to the Secretaries of the County Societies, the Medical Referees, the members of the Council and other individual physicians of the State for the prompt response which almost all of them have made to this request for personal information from the organized profession.

As might be expected, Kentucky physicians have responded in a larger proportion than in any of the other states. With such an organization and such men as compose the medical profession of Kentucky, we need never fear but that we will do our part for our profession, our State and our Country. Our people have always reposed their confidence in us, and it will always be our ambition to be worthy of their faith.

Respectfully submitted,

A. T. McCormack, Chairman
John W. Scott,
James A. Ryan,
Clark Bailey,
E. L. Henderson,
A. W. Davis

Together with this report, Mr. President, I would like to read a letter. I read that report to the Surgeon General of the Army so as to be certain he would approve the thought that we particularly wanted to get to the members of the profession, to keep right on doing what you are doing until you are called on to do

something else, and don't sell out your practice and your office and your furniture and expect to move out day after tomorrow, because that is not going to happen unless you are in the Reserve, and not then until you have gotten orders, and you will have plenty of time in which to make preparations if you do get the orders.

Doctors connected with hospitals and in charge of hospitals, connected with the vital industries, such as the coal industry or the manufacturing plants of the country, are expected to remain at their places until something has been done to indicate the absolute necessity for their leaving, for otherwise we would soon have our industries and our hospitals stripped of their personnel and we would be very much worse off than we would be if we did the thing in the orderly way in which we know how to do it and which becomes our great profession.

I wrote Dr. West and asked him some questions, and he wrote this reply on August 26:

"I was very glad to hear from you this morning, and was particularly interested in your statement pertaining to certain phases of the general subject of medical preparedness. You will recall that at the New York Session of the American Medical Association, Colonel G. C. Dunham, Medical Corps, United States Army, presented a 'tentative plan for the procurement of professional personnel for the Medical Corps of the Army in the event of a national emergency.' Under the plan submitted by Colonel Dunham the American Medical Association was to be asked to conduct a survey of the medical profession through its state and local activities. Prior to Colonel Dunham's statement to the House of Delegates, the Board of Trustees of the American Medical Association had submitted resolutions to the House proposing the appointment of a Committee on Medical Preparedness.

"Important sections of the statement submitted to the House of Delegates by Colonel Dunham read as follows: 'The local or county societies to canvass their members to determine of those who express a willingness to serve, who should be available for the military service and who, on account of their age, physical disability or commitment in civil capacities, should remain at home. The county society to give to each one who expresses his willingness to serve, even though he may be selected to remain at home, a button similar to that which was designed for the Volunteer Medical Service Corps dur-

ing the last war. The county societies to list those who are selected for the military service according to their professional qualifications, listing as surgeons, psychiatrists and so on only those who are members in the national specialists' organization. Also to select from those who are to remain at home qualified men for examining boards. The state societies to maintain an available roster of their members. The American Medical Association to maintain a numerical roster of availability by states.'

"The Reference Committee on Executive Session to which Colonel Dunham's statement and the resolutions submitted by the Board of Trustees were referred gave wholehearted approval to the resolutions of the Board of Trustees and fully endorsed the principles advocated in the statement submitted by Colonel Dunham.

"You will observe in the plan offered by Colonel Dunham, which was prepared in the office of the Surgeon General of the United States Army, the county medical society was given most important assignments and was thereby organized as an agency which would play a very essential part in plans for the procurement of professional personnel in organizing a program of national preparedness.

"The Committee on Medical Preparedness of the American Medical Association at a meeting, held in July confirmed nominations for State Chairmen that had been submitted by officials of constituent state medical associations. At the same meeting, instructions intended to be helpful for the guidance of state chairmen and officers of constituent state medical associations and component county medical societies were formulated by the Committee and were sent to all State Chairmen and to the secretaries of all constituent state medical associations. In so far as I am now informed, state committees on medical preparedness have been organized in all of the states and in many of the states, county committees on medical preparedness composed of members of county medical societies have also been organized. In many instances, according to information now in hand, state and county committees on medical preparedness are now actively at work.

"Concerning your reference to district medical societies, it may be said that, with the exception of one or two state medical associations whose component organizational units are known as district societies, other societies designated as district societies are societies organized in councilor

districts presumably most largely for strictly scientific purposes.

"With most cordial good wishes, I am

"Very truly your

"(Signed) Olin West"

Mr. President, I move the adoption of the report.

The motion was seconded.

PRESIDENT SCOTT: I know there is discussion of this report. It is now open for discussion. I think you have a statement to make, Dr. Henderson? We would be glad for you to open the discussion.

E. L. HENDERSON, Louisville: I have very little to say and very little that would be added to Dr. McCormack's report. However, I do wish to state that I had a communication from Dr. West at noon today in which he told me that Kentucky is well up above most all other states in the Union. The reports showed that we had 80.7 per cent of reports from the doctors throughout Kentucky, and some of them are in the neighborhood of 30 and 35, 40 and 45 per cent. However, there are a great number that are above 50 per cent. The reports are coming in slowly at this time, but we are in hopes that we will get a complete picture of the medical profession throughout the country.

I don't know whether Dr. McCormack told you or not, but the Secretary of the Canadian Medical Society met with the officers and Board of Trustees of the American Medical Association in New York, and at that time he outlined the plan that they had used in Canada, which was the plan that had been used in Great Britain, and our plan and questionnaire are very similar to the questionnaire sent out by the Canadian doctors and by the British doctors. In Canada, 92 per cent of the doctors (they have approximately 8,000 doctors in Canada) not only answered the questionnaires, but offered their services to be used any time or anywhere that they could be used. I hope before we finish with this preparedness scheme our report will equal the Canadian report.

As I stated a few minutes ago, it is coming in a little slowly at this time, but is gradually increasing.

The reason we are at the head of the list in Kentucky is because you have an active man at the head of the committee and he has worked and worked diligently on this committee. He has sent out questionnaires to doctors who have not reported, he has organized committees in all the counties of the state, and really is trying to get every doctor in the state to answer these questionnaires and make it a hundred per cent, and that is what we

are going to have before we will be satisfied. I am sure that Dr. McCormack, through his efforts, is going to accomplish that. (Applause)

PRESIDENT SCOTT: This report is open for further discussion. Are there any other questions or comments? If not, I will put the question on the adoption of the report. All those in favor of its adoption indicate by saying "aye"; opposed "no." The motion is carried.

SECRETARY McCORMACK: At the registration desk, if anybody here should happen to be out of the state and would not be here under any other circumstances, there are some blanks at the desk and we will mail them in if anybody should stray in from any of our counties who has not filled out the questionnaire.

PRESIDENT SCOTT: We will call for the Report of the Committee on the Woman's Auxiliary, Mrs. R. T. Layman, Elizabethtown.

MRS. R. T. LAYMAN, Elizabethtown: The Woman's Auxiliary to the Kentucky State Medical Association is happy to report another successful year. We are proud of the distinguished history of the Kentucky medical profession. No institution in this country has made a greater contribution to the public health and welfare of its day.

Those in public affairs have left medical and health problems to the doctors. More progress has been made in public health and medical service than in any other human activity in Kentucky because the responsibility for it has been placed squarely upon the shoulders of the medical profession. We trust we will continue to be guided in regard to public health and medical service by our doctors, and therefore the Woman's Auxiliary of Kentucky is doing its part to place the medical profession on the high standard upon which it belongs. Each county Auxiliary is doing its part in helping to educate the public that preventive medicine is our great need that such diseases as tuberculosis, venereal disease, cancer, and almost all communicable diseases can be educated and vaccinated out of existence.

We also have joined the fight for better sanitary conditions, better food for our underprivileged children, better conditions for our indigent tubercular patients. We have furnished speakers for P. T. A. and women's clubs on health subjects. In all worthwhile clubs there are doctors' wives who have an opportunity to promote public health education. In order to achieve results, we must be active and alert, for women are playing an important part in the business world today. We are living

in a different age, and the golden gates of opportunity are open to both sexes alike.

I will not go into detail about what each county auxiliary has done and is doing, but from their reports to me they are doing outstanding work for which the Medical Association will be justly proud. Many counties raise funds to carry on the work they are doing.

As an organization, we gather our strength and employ it in promoting the issue for which our husbands toil. Remember, we stand with the medical profession 100 per cent in peace or war.

Respectfully submitted,

(Signed) Mrs. R. T. Layman, President.

VIRGIL G. KINNAIRD, Lancaster: Mr. President, I should like to congratulate Mrs. Layman on her splendid report and also to congratulate the Woman's Auxiliary on the wonderful work that they are doing. I think they merit our wholehearted support. I move the report be approved.

The motion was seconded.

SECRETARY McCORMACK: I would like to say just one thing about this. You know, when I talk about some of these things to you I feel very much like our dear parsons must feel when they are talking to us in regard to the repetition of those sins that we are in the habit of committing and that we just keep on doing. I am absolutely sure that none of those who come from counties in which there are organized Auxiliaries fail to realize their importance. Many of you, however, never have seen an Auxiliary in operation, except your own individual one, and you are a little afraid she might get to be a little divergent from her concentration on you if she got organized and were doing something else.

I am very much about the Auxiliary as I was about my first x-ray machine. I didn't believe it when I was looking through there and saw what I saw, and then I didn't believe I was going to be able to see anything with it the second time when I got back. In fact, after I had seen it a number of times I felt like old Aunt Betsy Green down in my county, who came in to me with a broken arm, and after I had reduced it and she had come out from under the anesthetic, I asked her if she would like to look through there and see it, and she looked through the fluoroscope and said, "Them my bones?"

"Yes."

"Them boards on both sides of them?"

"Yeah."

"Keep that thing p'inted that way while I back out of the room because I ain't got nothin' on but a thin dress." (Laughter)

There are times when we want to be

sure to keep ourselves p'inted right.

In this Woman's Auxiliary we have an agency available that has potency and power that can help to interpret our aims and desires to a group of people that it is difficult for us to reach otherwise. They know us, and in spite of us they still like us, but they know our ideals and our aspirations and admire us because we have adopted them. If we can get our women to understand the complex problems that confront medical organization, not only the individual doctor but medical organization, they can carry the word to many people that we cannot reach; we are busy with the ones that are already sick and we can't help with the education of those who are not sick.

I want to ask you again, and this time with all the persuasive ability I have, to help organize and keep organized the auxiliaries in your counties so that your people may have the benefit of an interpretation of medicine from those who are best able and most sympathetically able to interpret it.

Our President, whose very instructive and caustic criticism always keeps me entertained as I sit up here by him because his asides are extremely valuable (and I am sorry the reporter doesn't get all of them), said, when Mrs. Layman started to read her report, that in contrast to those that had been presented by most of the rest of us, it had covered only two pages and she was a woman. If he would go to meetings of the Woman's Auxiliary he would find out the pointedness and the brevity of everything they do. It is an orderly crowd of zealous people who are really striving to accomplish something for us. Most of you know that because you read the Quarterly and you are so interested and entertained by it that you rarely take it home to your wives, for whom it is meant. Of course, you all know you are guilty about that. Hereafter, take it home to the women. Let them get interested and let them have the knowledge that is power in medicine as it is in everything else, and let's help Kentucky. We are not short in quality, but we are short in numbers as compared with most of the other well organized states in our Auxiliary. That is due to the very properly conservative attitude of our doctors about women, who, of course most of us haven't realized yet, have arrived and are now half the voters of the United States, own about 80 per cent of the property of the United States, and in Kentucky have 99 per cent of the pulchritude and about 44 per cent of the brains, and we might as well, while we can take advantage of that and organize it and

have it working for us instead of having it just running out. (Applause)

PRESIDENT SCOTT: Dr. McCormack evidently didn't inherit his brevity from his mother. (Laughter)

SECRETARY McCORMACK: Nor my father, either.

PRESIDENT SCOTT: The motion before the House is the adoption of this report. Is there further discussion? All in favor of its adoption indicate by saying "aye"; opposed "no." The report is adopted.

I see Dr. Reddish in the room. Doctor, have you a report for the Committee on Publicity?

WILLIAM D. REDDISH: No, sir, there is a mistake about that and Dr. Gatewood was the publicity man.

PRESIDENT SCOTT: Well, he is not here.

SECRETARY McCORMACK: Mr. President, I rise to a point of personal privilege. I think Dr. Reddish ought to come up and stand before the microphone for a moment, even if it was a mistake, because I know everybody in the audience would be perfectly delighted to see him. (Applause)

W. D. REDDISH: That is another mistake.

PRESIDENT SCOTT: The next report is the report of the Special Committee to Review the Constitution and By-Laws with Reference to Medical Economics, Dr. E. B. Bradley, of Lexington, Chairman.

ERNEST B. BRADLEY, Lexington: You won't think this is so funny, because I am not as brief as the ladies, and I am sorry for it because it really is my habit to be as brief as possible. This report is going to take a good while.

Last year at Bowling Green, J. D. Northcutt, under unfinished business, offered a resolution as follows:

"BE IT RESOLVED, That a committee of five be appointed to review the Constitution and By-Laws of this Society and recommend such changes that will better enable this Association to deal with the changing economic conditions, present and anticipated, and that this committee have the recommendations printed and presented at our next meeting, or earlier, if circumstances demand."

When asked what he meant by the next meeting, he said that he meant the next meeting of the House of Delegates, which I think was supposed to have come on Thursday, but anyhow, at another meeting there was a motion—

SECRETARY McCORMACK (Interposing): That was on Thursday. This is the next meeting.

E. B. BRADLEY: This committee was appointed by Dr. Scott later, and consisted of E. B. Bradley, Chairman; J. D. Northcutt,

Covington; Oscar O. Miller, Louisville; J. D. Gaither, Hopkinsville; and K. S. McBee, Owenton.

During the summer, I had a meeting of this committee in Lexington, and for two or three hours we discussed what we thought was the scope of the committee. To try to revise the Constitution and By-Laws to meet the changing economic conditions was a rather difficult thing, but in going over the Constitution and By-Laws this committee recommended quite a few changes, some of which are rather radical, others which are brought about by the change in time since this Constitution was adopted thirty-five years ago, I believe—in 1902, that is thirty-nine years ago.

Some of the changes are perfectly apparent, I mean there is no provision, for instance, in our present Constitution and By-Laws for a President-Elect. He is mentioned further on in the By-Laws, but in our present constitution it says that nominations for President, for instance, shall be called for by counties. Of course, the President is no longer elected; the President-Elect is elected.

We will make a report as a committee; then as an individual I am going to propose that these changes in the Constitution and By-Laws be proposed as changes. To change the Constitution requires that these changes be printed and sent to each county medical society of the state, and that they be voted upon at the next meeting, that they lie over, in other words, for a year. The By-Laws can be changed by being laid on the table for one day. However, since the changes in the Constitution are so closely associated with the changes in the By-Laws we are not asking that the changes in the By-Laws be taken up at this Lexington meeting, but be deferred until next year.

I have a copy of the old Constitution and By-Laws pasted on this paper. All of this is not to be read, and where we propose changes I will try to explain what they are about. For instance, in Article 1V, Section 1, (I am sorry your haven't your JOURNALS here) it says, "This Association shall consist of Members, Delegates and Guests." We felt that delegates, of course, were members, and there was no particular reason to put them in. However, we provide in a later by-law for life members and honorary members, so we ask that Section 1 be changed to read:

"Section 1. This Association shall consist of Members, Guests, Life Members and Honorary Members."

Then we delete one section, old Section 3, and change it to make it read:

"Section 3. Life Members. Life mem-

bers shall be such physicians as have discontinued active practice, having been in good standing as Active Members at the time of cessation of practice, and who have been elected by their County Societies as Life Members."

There is no provision in our Constitution for Life Members, and yet certain county societies have elected men who have ceased practice and have been in honorable practice for five years preceding and are members as Life Members.

"Section 4. Honorary Members. Honorary members shall be such distinguished physicians not residents of Kentucky, who on invitation have participated in the program of an Annual Session, and who have been elected Honorary Members by the House of Delegates."

That has been our practice, but it wasn't in the Constitution in those words; it may have been in another place in a different way.

Where Section 1, Article VII, reads: "The Association shall hold an Annual Session, during which there shall be held daily not less than two General Meetings, which shall be open to all registered members, delegates and guests," we just delete the word "delegates," because we feel if it is open for members it certainly is open for delegates. These changes are purely changes in wording rather than in meaning.

The old article on officers says, "The officers of this Association shall be a President, three Vice-Presidents, a Secretary, a Treasurer, and eleven Councilors." We insert the President-Elect.

"Section 1. The officers of this Association shall be a President, a President-Elect, three Vice-Presidents, a Secretary, a Treasurer, and eleven Councilors."

There being no provision for the election of the President-Elect, but rather the President, we have changed Section 2, Article VIII, to read: "The President-Elect and the Vice-Presidents shall be elected for a term of one year." There is a change, now, in the next. "The Secretary, Treasurer, and the Councilors shall be elected for terms of three years each. The election of Councilors shall be so divided that not more than four shall be elected each year. It is provided, further, that no Councilor may be elected for more than three consecutive terms of three years each. All officers shall serve until their successors are elected and installed."

You see, there is one radical change that we are proposing in the Constitution. In other words, instead of making the Councilor a life-time job, he cannot serve more than nine years consecutively. Whether

that meets with your approval or not I don't know. Some of the committee felt that six years was long enough, but in talking it over with other officers of the Association they felt that that was not long enough, and some of them do not feel that even nine years is long enough. I admit that is a controversial point as to whether they might be eligible for election for life or for terms of three years each, but anyway, our proposal is that they shall be elected for terms of three years each and no Councilor shall be elected for more than three consecutive terms.

SECRETARY McCORMACK: Dr. Bradley, make it clear that at present they are elected for five years.

E. B. BRADLEY: At present they are elected for five years and they can be reelected every five years. It really is quite a radical change, and of course I don't know whether it is going to meet with the approval of the Association. It met with majority approval of the committee.

Now, there is another change in Section 3, which says: (I will read the old one first) "The officers of the Association shall be elected by the House of Delegates on the morning of the last day of the Annual Session, but no Delegates shall be eligible to any office named in the preceding section, except that of Councilor, and no person shall be elected to any such office who is not in attendance upon the Annual Session, and who has not been a member of the Association for the past two years."

The new one would read: "The officers of the Association shall, except the Councilors, be elected by the House of Delegates on the morning of the last day of the Annual Session, but no Delegate shall be eligible to any office named, except that of Councilor, as provided for in the following section, and no person shall be elected to any such office who has not been a member of this Association for the past two years, provided, however, that the secretary need not be a member of this Association nor necessarily a physician."

That is really a radical change. Of course, it doesn't say that the Secretary cannot be a member of the Association. In other words, as long as we have Arthur McCormack in the Association there will be no question about it. We are looking a long way ahead, not the next four or five years or ten years while Arthur is still active, but fifty years from now when he and I will probably both be gathered somewhere.

SECRETARY McCORMACK: Speak for yourself. (Laughter)

E. B. BRADLEY: I must say that I don't think Arthur agrees with this. He feels that

the Secretary should be a member of the Association. However, if a member of the Association has the qualifications to be Secretary, such as Arthur has had, (and I will say there aren't many medical men who are really capable of running an association as Arthur has done) he could be elected. A great many state associations now have lay secretaries. Whether we want to have a lay secretary or not doesn't matter, but if we should want to, the Constitution would allow us to do so. That is simply what we think is modernizing the Constitution, whether for better or worse.

Here is probably the biggest change in the whole Constitution, Article VIII, Section 4. (Where there have been no changes I have not read the sections.) "The Councilors shall be elected by the respective Councilor district societies, providing that if any district shall exist without a society, or if the district society fails to meet or to elect its Councilor and to notify the House of Delegates before or at the time of the Annual Session, the Councilor for such a district shall be elected by the House of Delegates. Provided, further, that the stipulations in Section 4 preceding as to the ineligibility of delegates shall not apply to Councilors elected by the House of Delegates under this section."

We have taken out something that I think was rather foolish. In the old Constitution, it says, "No person shall be elected to any such office who is not in attendance at an Annual Session." Suppose Arthur broke his leg in the year that we wanted to elect him Secretary and couldn't get here, we would have to break the Constitution to elect him, or we couldn't elect him. We are taking that out. If we want to elect somebody to an office, there is no reason why he should be here. That seems to me perfectly silly; it is impractical. That was left out of the other section.

This allows a delegate to be elected as Councilor in case the Councilor District did not elect its own Councilor.

A lot of the rest of it stays the same. In fact, those are the only changes that are proposed in the Constitution.

Our By-Laws are much more voluminous than the Constitution, and there are more changes in the By-Laws.

Under Membership, which is Chapter 1 of the By-Laws, we have changed this a little.

"Section 1. Members. Members must be registered physicians and residents of the state and active members of a component County Society in good standing." That is not changed much from the other.

We have a new Section 2 on what is

"Section 2. Life Members. Any physician who is not less than 65 years of age, not engaged in active practice, who has been an active member of a component County Society for not less than the preceding five years, may, on recommendation of a component County Society, be elected by the House of Delegates to Life Membership. Life members shall be entitled to all the privileges of Active Members, except the right to vote, hold office, or receive benefits of the State Defense Bureau, and they shall not be assessed dues." In other words, they are allowed to participate in the meetings, and they will receive the JOURNAL.

"Section 3. Honorary Members," provided for in the Constitution. "Any physician possessed of scientific attainments and a good professional standing, who has participated in the program of a Scientific Session and who is not a citizen of Kentucky, may, by unanimous vote of the House of Delegates be elected to Honorary Membership. Honorary members shall be entitled to the privileges of the floor in all Scientific Sessions."

This does not limit the number of honorary members that the delegates may elect in any one year. Whether that was ever limited I cannot find, but I understand sometimes by ruling, even last year, we were about to elect two instead of one, but there is no such thing in the Constitution and By-Laws.

SECRETARY McCORMACK: There was a standing rule adopted by resolution in 1904 to limit it to twenty.

E. B. BRADLEY: The standing rules are not published in the Constitution and By-Laws so we thought this ought to be in there. I don't see any reason why, if we have two or three distinguished out-of-state physicians participating in a program, we couldn't elect two or three to honorary membership. We don't lose anything by it. They don't get anything but the privilege of the floor, and they could get that anywhere.

A change in the By-Laws about the registered members. Chapter III, Section 1. The new section would read: The General Meeting shall include all registered Members, Life Members, Honorary Members and Guests, who shall have equal rights to participate in the proceedings and discussions." That needs no explanation.

Under the House of Delegates, Chapter IV, Section 1, there is no provision for a special session of the House of Delegates, and we felt that should be provided for and we provided for it by saying: "The House of Delegates may be called into a Special Session on concerted agreement

between the President and the Council, and, further, a special session of the House of Delegates shall be called by the President on written request of delegates representing fifty or more component County Societies. When such special session is called, the Secretary shall mail a notice of the time and place and purpose of such meeting to the last known address of each member of the last House of Delegates, at least ten days before such special session."

Some of these changes were suggested just by reading the Constitution and By-Laws of other states.

Section 8 of this chapter now reads: "It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body, in such manner that not more than one-half of the delegates shall be elected in any one year." That was when we had two.

SECRETARY McCORMACK: Four.

E. B. BRADLEY: Well, now that we have three, there is one year that we elect two, and of course that is in direct opposition to what the Constitution says, so we just deleted that part that says, "in such manner that not more than one-half of the delegates shall be elected in any one year," so that it reads, "in accordance with the Constitution and By-Laws of that body," the American Medical Association.

Where nominations for President shall be called for by counties, Section 4 of Chapter V, we put: "Nominations for President-Elect shall be called for by counties," because we no longer elect a President.

There is no provision for the duties of a President-Elect, there being no provision for the office of President-Elect, so we have given that as follows:

By-Laws, Chapter VI, Section 2, add a new section:

"The President-Elect shall be the Chairman of the Program Committee of the Scientific Session and shall appoint one or more active members of the Association to serve on the Program Committee."

SECRETARY McCORMACK: That ought to be Committee on Scientific Work, because elsewhere it is Committee on Scientific Work and there is no Program Committee in the By-Laws.

E. B. BRADLEY: On Scientific Assembly. That means the Scientific Session, the Program Committee of the Scientific Session.

SECRETARY McCORMACK: It is not a Program Committee, it is the Committee on Scientific Work.

E. B. BRADLEY: We can change that, and I will change it to read, "The President-Elect shall be the Chairman of the Committee

on Scientific Work and shall appoint one or more active members of the Association to serve on this Committee. He shall become President of the Association at the next Annual Meeting of the Scientific Session following his election as President-Elect. During his office as President-Elect he shall assist the President in visitation of County and District meetings and shall be ex-officio member of the House of Delegates and of the Council with the right to vote. In event of death, resignation or if he becomes permanently disqualified, his successor shall be elected by the House of Delegates at its first session of the next annual meeting of the Association following such death, resignation or other permanent disqualification. He shall be installed as President at the first session of the Annual Meeting of the Scientific Session following his election." There had been no provision for that because there was no provision for President-Elect.

Under the duties of the Treasurer, for some reason there is one paragraph that says, "The Council shall be the executive body of the House of Delegates and between sessions shall exercise the powers conferred on the House of Delegates by the Constitution and By-Laws." We transferred that to the By-Laws which referred to the duties of the Council. We did not change it; we just changed the place.

As to the duties of the Secretary, where it says, "He shall be editor of the Kentucky Medical JOURNAL," we propose to delete that, because we say that he shall not be the editor of the Kentucky Medical JOURNAL, remember, for the same reason that it might be that your Secretary might not be the best man to be editor of the Kentucky Medical JOURNAL. As long as we have Arthur I don't think there is any question, but that we will have the same editor that we have now. However, as I said, you can't tell what might happen to Arthur and to me in the future; we have lived a long time, Arthur, they talk so much about your dying—I think Arthur took it rather seriously this afternoon.

SECRETARY McCORMACK: As a matter of fact, Mr. President, I don't get sensitive when any of my friends confine their comments to facts and I know you always do.

E. B. BRADLEY: Thank you so much, Arthur. I will say I think he can laugh at me because I feel I shall have gone before him by some few years.

I read you the addition to Chapter VII, Section I: "The Council shall be the executive body of the House of Delegates and between sessions shall exercise the powers conferred on the House of Delegates by the Constitution and By-Laws." That is

just transferred to the duties of the Council.

The old By-Laws say, "In the event of a vacancy in any office the Council may fill the same until the annual election." We have cut out that paragraph and we have made it read: "In the event of a vacancy in any office, the Council may fill the the same until the annual election"—that is the same, no, excuse me, we have deleted that to make it read as follows: "In the event of a vacancy, the filling of which is not otherwise provided for, the Council shall elect such members whose names are submitted to the President for such vacancies. These vacancies include all standing committees, temporary, or special committees authorized by the House of Delegates or by the Council, and Representatives to such organizations as the Association may be entitled to representation." In other words, the President has the appointment, practically, of most of these committees and the ones that he doesn't appoint the House of Delegates elects. We felt that the President should be the one to propose to the Council the names from which the Council should select the person for such vacancy.

Now there are two sections here. One of them has to do with Dr. Northcutt's resolution, and I don't think there is any particular difference, but I will read it to you. It has to do with changing economic conditions, as I understand—but I don't understand.

"The Council shall make recommendations to the House of Delegates reflecting the views of the Association in the matter of accepting, handling or distributing any and all funds advanced, furnished, donated, appropriated or provided by or through State, National, or other source which in any manner affects or is intended to affect or promote the public health, the Public Health Service, or the erection or maintenance of hospitals or similar institutions or for providing medical care or aid for indigent persons, and for the expenditure of any money or the conduct of any enterprise directly or remotely connected with or related to any subject aforementioned."

It sounds very legal, and like most of these legal things, I don't think it really affects the duties of the Council, who have already the duty of handling all the funds, and so on. However, it is inserted.

Here is a change that we thought was maybe important, I don't know. We felt that if any matter came up before the Council that was controversial, that is, wasn't a question of unanimous opinion, the Council should have a meeting rather

than vote on it by mail or by telephone, and we have inserted this section to cover that point. I mean if the vote were close, maybe a vote of six to five, or something of that sort, we felt it would be better to have it discussed. It reads as follows:

"Section 3. Members of the Council may vote upon any question only when present in person, except where an emergency exists when it shall require the votes of eight members to decide a question when no formal meeting is held." In other words, if eight members are for it, it doesn't matter whether the Council meets formally, but if it is a controversial question where they can't get eight votes, we thought the Council ought to meet and decide.

Having deleted the sentence that the Secretary shall be editor of the State Medical JOURNAL, we had to make provision for appointment of the editor, and it is made in this way:

"The Council shall provide for and superintend the publication and distribution of all proceedings, transactions, and memoirs, of the Association and shall have authority to appoint the Editor of the Kentucky Medical Journal, and such assistants to the editor as it deems necessary. It shall manage and conduct the Kentucky Medical Journal, which is the organ of the Association, and all money received by the Journal, the Council, or any officer of the Association, shall be paid to the Treasurer of the Association on the first of each month."

The only change in that section that I read at all is that they shall appoint the editor of the Kentucky State Medical JOURNAL.

We didn't make any changes, then, for a long way. Under the appointment of committees, toward the end there is a Committee on Medical Education and no provision for its appointment, and we simply said:

"Chapter VIII. Add new Section 6:

"The Committee on Medical Education shall consist of three members who shall be appointed by the President and shall serve for one year. It shall prepare a report covering its activities during the year to be presented to the House of Delegates for its consideration."

The By-Laws provide for only four or five committees: a Committee on Scientific Work, Committee on Public Relations, Committee on Medical Education, and a Medico-Legal Committee. All of those have their appointment provided for except this one, so we provided for it.

When county societies are in arrears and fail to pay their dues, there is a provision in the old By-Laws that they shall not be

permitted to participate in any of the business or proceedings of the Association or the House of Delegates until such requirements have been met, and we have added another:

Chapter IX, Section 2. "The Journal shall not be sent to any member of a County Society so suspended after the April issue, nor shall he be held protected by the medico-legal service of the Association." That is where members have been suspended for non-payment of dues.

We changed the wording for amendment to the By-Laws. I don't think that we did any better. It read before: "These By-Laws may be amended by Annual Session by a two-thirds vote of all the delegates present at that session, after the announcement has been laid on the table for one day." We say: "These By-Laws may be amended by the House of Delegates during any annual session by a two-thirds vote of all delegates present at that session, provided that a proposed amendment shall be submitted in writing by a member of the House of Delegates, and, provided further, that such a proposed amendment shall be laid on the table for one day."

Mr. President, as you see, this covers a wide range, a good deal wider than this committee, I think, was supposed to cover, so that if it is in order I would simply say that the following changes in the Constitution and By-Laws are hereby proposed. Dr. Northcutt and Dr. McBee are here, but Dr. Oscar Miller and Dr. Gaither I haven't seen, so I have just signed it. I take it in amending the Constitution, the proposed amendment can be put in in writing at any session provided however, that it lay over for one year. Therefore I just offer these proposed changes in the Constitution and By-Laws of the Kentucky State Medical Association as adopted at Paducah in 1902 as amended. It is the report, however, of your special committee.

PRESIDENT SCOTT: Changes in the Constitution and By-Laws.

E. B. BRADLEY: Changes in the Constitution and By-Laws hereby proposed, and this is the copy I am submitting.

Changes proposed in the Constitution and By-Laws of the Kentucky State Medical Association as adopted at Paducah in 1902 as Amended.

CONSTITUTION

Article IV. Change Section 1 to read:

Section 1. This Association shall consist of Members, Guests, Life Members and Honorary Members.

Delete old Section 3; make new Section 3 and Section 4 to read:

Section 3. Life Members. Life members shall be such physicians as have discontinued active practice, having been in good standing as Active members at the time of cessation of practice, and who have been elected by their County Societies as Life members.

Section 4. Honorary Members. Honorary Members shall be such distinguished physicians not residents of Kentucky who on invitation have participated in the program of an Annual Session, and who have been elected Honorary Members by the House of Delegates.

Make present Section 4, Section 5.

Article VII. Sessions and Meetings. Section 1. Last line (delete "Delegates," change to read): "Members, Life Members, Honorary Members and Guests."

Article VIII. Section 1. Amend to read:

Section 1. The Officers of this Association shall be a President, a President-elect, three Vice-Presidents, a Secretary, a Treasurer and eleven Councilors.

Section 2. Amend to read:

Section 2. The President-Elect and the Vice-Presidents shall be elected for a term of one year. The Secretary, Treasurer and the Councilors shall be elected for terms of three years each. The election of Councilors shall be so divided that not more than four shall be elected each year. It is provided, further, that no Councilor may be elected for more than three consecutive terms of three years each. All officers shall serve until their successors are elected and installed.

Section 3. Amend to read:

Section 3. The officers of the Association shall, except the Councilors, be elected by the House of Delegates on the morning of the last day of the Annual Session, but no Delegates shall be eligible to any office named, except that of Councilor as provided for in the following section, and no person shall be elected to any such office who has not been a member of this Association for the past two years, provided, however, that the secretary need not be a member of this Association nor necessarily a physician.

Article VIII, Section 4. Make new section.

Section 4. The Councilors shall be elected by the respective Councilor district societies, providing that if any district shall exist without a society, or if the district society fails to meet or to elect its Councilor and to notify the House of Delegates,

before or at the time of the Annual Session, the Councilor for such a district shall be elected by the House of Delegates. Provided, further that the stipulations in Section 4 preceding as to the ineligibility of delegates shall not apply to Councilors elected by the House of Delegates under this section.

BY-LAWS

Chapter I. Membership. Make three new sections.

Section 1. Members must be registered physicians and residents of the state and active members of a component county society in good standing.

Section 2. Life Members. Any physician who is not less than 65 years of age, not engaged in active practice, who has been an active member of a component county society for not less than the preceding five years, may on recommendation of a component county society be elected by the House of Delegates to Life Membership. Life Members shall be entitled to all the privileges of Active Members except the right to vote, hold office, or receive benefits of the State Defense Bureau, and they shall not be assessed dues.

Section 3. Honorary Members. Any physician possessed of scientific attainments and a good professional standing, who has participated in the program of a Scientific Session and who is not a citizen of Kentucky, may, by unanimous vote of the House of Delegates be elected to Honorary Membership. Honorary Members shall be entitled to the privileges of the floor in all Scientific Sessions.

Make present Section 1, Section 4.

Make present Section 2, Section 5.

Make present Section 3, Section 6.

Make present Section 4, Section 7.

Chapter III, By-Laws.

Section 1. Change first paragraph to read:

"Section 1. The General Meeting shall include all registered Members, Life Members, Honorary Members and Guests who shall have equal right to participate in the proceedings and discussions.

Add to By-Laws, Chapter IV, at the end of Section 1:

The House of Delegates may be called into a Special Session on concerted agreement between the President and the Council, and, further, a special session of the House of Delegates shall be called by the President on written request of delegates representing fifty or more component county societies. When such special session is called, the Secretary shall mail a notice of

the time and place and purpose of such meeting to the last known address of each member of the last House of Delegates, at least ten days before such special session.

Chapter IV, Section 8. Delete the last lines: "in such manner that not more than one-half of the delegates shall be elected in any one year."

By-Laws, Chapter V, Section 4. Amend to read:

Section 4. Nominations for President-Elect shall be called for by counties.

By-Laws, Chapter V, Section 4. Amend new section.

Section 2. The President-Elect shall be the Chairman of the Committee on Scientific Work and shall appoint one or more active members of the Association to serve on this committee. He shall become President of the Association at the next Annual Meeting of the Scientific Session following his election as President-Elect. During his office as President-Elect he shall assist the President in visitation of County and District meetings and shall be ex-officio a member of the House of Delegates and of the Council with the right to vote. In event of death, resignation or if he becomes permanently disqualified, his successor shall be elected by the House of Delegates at its first session of the next annual meeting of the Association following such death, resignation or other permanent disqualification. He shall be installed as President at the first session of the Annual meeting of the Scientific Session following his election.

By-Laws, Chapter VI.

Make present Section 2, Section 3.

Make present Section 3, Section 4.

By-Laws, Chapter VI, Section 3. (Delete the last five lines pertaining to the Council, which is to be transferred to Chapter VII, Section 1.)

Make present Section 4, Section 5.

Chapter VI, Section 4, about line 38: Delete: "He shall be editor of the Kentucky Medical Journal."

Add to and begin with Chapter VII, Section 1, with:

Section 1. The Council shall be the executive body of the House of Delegates and between sessions shall exercise the powers conferred on the House of Delegates by the Constitution and By-Laws.

By-Laws, Chapter VII.

Section 1. Delete the last sentence of Section 1 which reads, "In the event of a vacancy in any office, the Council may fill the same until the annual election."

Add to Section 1 instead of this sentence, the following: "In the event of a vacancy,

the filling of which is not otherwise provided for, the Council shall elect such members whose names are submitted by the President for such vacancies. These vacancies include all standing committees, temporary, or special committees authorized by the House of Delegates or by the Council, and Representatives to such organizations as the Association may be entitled to representation."

Add two new sections:

Section 2. The Council shall make recommendations to the House of Delegates reflecting the views of the Association in the matter of accepting, handling or distributing any and all funds advanced, furnished, donated, appropriated or provided by or through State, National or other sources which in any manner affects or is intended to affect or promote the public health, the Public Health Service, or the erection or maintenance of hospitals or similar institutions, or for providing medical care or aid for indigent persons, and for the expenditure of any money or the conduct of any enterprise directly or remotely connected with or related to any subject aforementioned.

Section 3. Members of the Council may vote upon any question only when present in person, except where an emergency exists, when it shall require the votes of eight members to decide a question when no formal meeting is held.

By-Laws, Chapter VII.

Make present Section 2, Section 4.

Make present Section 3, Section 5.

Make present Section 4, Section 6.

Make present Section 5, Section 7, and amend to read: "The Council shall provide for and superintend the publication and distribution of all proceedings, transactions, and memoirs, of the Association and shall have authority to appoint the Editor of the Kentucky Medical Journal, and such assistants to the editor as it deems necessary. It shall manage and conduct the Kentucky Medical Journal, which is the organ of the Association, and all money received by the Journal, the Council, or any officer of the Association, shall be paid to the Treasurer of the Association on the first of each month."

Make present Section 6, Section 8.

Make present Section 7, Section 9.

By-Laws, Chapter VIII, Add new Section 6.

Section 6. The Committee on Medical Education shall consist of three members who shall be appointed by the President and shall serve for one year. It shall prepare a report covering its activities during

the year to be presented to the House of Delegates for its consideration.

By-Laws, Chapter IX, Section 3. Amend by adding a final paragraph to read: "The Journal shall not be sent to any member of a County Society so suspended after the April issue, nor shall he be held protected by the medico-legal service of the Association."

By-Laws, Chapter XIII. Amend to read: "These By-Laws may be amended by the House of Delegates during any annual session by a two-thirds vote of all delegates present at that session, provided, that a proposed amendment shall be submitted in writing by a member of the House of Delegates, and, provided further, that such a proposed amendment shall be laid on the table for one day.

(Signed) E. B. Bradley, Chairman.

PRESIDENT SCOTT: You have heard these proposals.

B. W. SMOCK, Louisville: I congratulate Dr. Bradley on this intensive study and especially upon his presentation of this quite lengthy report. I am sure that all of you who are not acquainted with the problem before this committee feel, as I do, that there are a number of things that we should think about in the recommendations for amendment to the Constitution and By-Laws of our State Society, and I feel that I would not care to cast a ballot to endorse the recommendation of these amendments without a great deal of study and considerable thought. I think it takes a lot of time to change something that has worked as efficiently as our State Society. It is old-time religion, and if it is good enough for my father it is good enough for me.

I move you, Mr. President, that this report proposing amendments of the Constitution and By-Laws be tabled.

The motion was seconded by H. H. Hunt, Mayfield.

PRESIDENT SCOTT: It is moved and seconded that the proposal for changes in the Constitution be tabled. Is there any discussion?

SECRETARY McCORMACK: You can't discuss a motion to table.

The question was called for.

PRESIDENT SCOTT: You have asked for this question. All those in favor of tabling this proposal for changes in the Constitution and By-Laws will indicate it by saying "aye;" all those opposed will indicate it by saying "no." The "ayes" seem to have it. Do you wish a division?

AUSTIN BLOCH, Louisville: I would like to ask the Doctor whether his motion im-

plies that it would be permanently tabled or tabled for the next year.

B. W. SMOCK: I mean table it for all time.

SECRETARY McCORMACK: A motion to table it means to kill the report of the Committee.

B. W. SMOCK: To table means that it is laid aside permanently, and it must be brought up again.

PRESIDENT SCOTT: You didn't mean, then, to take it up point by point?

B. W. SMOCK: I moved that it be tabled.

PRESIDENT SCOTT: That is how I understood you in the first place. The "ayes" seem to have it, but we will ask for a division. Those in favor of tabling this report, that means those in favor of killing the proposal for changes in the Constitution, will indicate by rising. (75). Those in favor of not tabling the report of this Committee will please rise (10). The "ayes" have it. (Applause).

E. B. BRADLEY: Mr. President, while that motion is gone, of course I can see plainly there are some controversial questions in it. However, I think that perhaps if they would pick out the ones that they would like to kill, it would be a good idea to have in your Constitution a provision for President-Elect and some of those officers, that we have now. There are some perfectly self-evident changes in the Constitution and By-Laws that should be made. I thought perhaps it would be taken up a year from now section by section and certain sections would be adopted and certain ones not adopted. It doesn't, of course, make a bit of difference to me. I was glad to spend the time on it. I learned a good deal about the Constitution and By-Laws. But I would like to move—it isn't in order though, I guess; I was going to move that the President appoint a committee for revision of the By-Laws and find out which ones are controversial, so that we might leave those out and could have certain changes that are absolutely self-evident. For instance, the election of a President, which now has to be called for by counties, and that not more than one-half of the delegates to the American Medical Association could be elected in any one year, of course are perfectly absurd provisions. They were all right in 1901, or whenever it was, but there are provisions in the Constitution that should be changed, because as they read now they are absurd. If it were in order I would ask the President to appoint a committee — maybe we have a standing committee on constitution and by-laws. Have we?

SECRETARY McCORMACK: There has always been a committee appointed by the President at each session for the recommended revisions of the Constitution and By-Laws, a reference committee, but this year this committee was appointed to work through the year.

E. B. BRADLEY: If such a committee were appointed they could make certain proposals. I don't know whether they could make them Thursday morning and leave them over a year, but they could make them again next year so in 1945 when the war situation is over you would have a new constitution.

C. C. TURNER, Glasgow: It seems to me this is out of order. The matter has been voted on and defeated.

PRESIDENT SCOTT: The point of order is well taken.

W. L. GOSSETT: According to parliamentary rule, you or nobody can take up a question that is killed and consider it at this session.

PRESIDENT SCOTT: If the point of order had been raised sooner, the Chair would have ruled that the point was well taken. As a matter of fact, however, there is no reason why any member of this Association should not, under new business, make any motion, regardless of whether this has been tabled or not. This matter has been tabled.

SECRETARY McCORMACK: Mr. President, a matter that has been tabled and considered at a session cannot be reconsidered under the head of new business at this session. That is true in the legislature. If a bill is killed by moving to lay it on the table, you can't introduce that bill over again as a new bill.

PRESIDENT SCOTT: I bow to the Secretary in parliamentary law. It does seem to me that this House should be able—not if it is against it, and it is plainly indicated that it is against this proposal—in some way to register its will about the points that Dr. Bradley has raised, which are certainly apt to have pretty nearly unanimous consent. I don't know how that would be.

SECRETARY McCORMACK: A reference committee on the constitution and by-laws will necessarily be appointed at the next session and can bring in all the changes and corrections they want to make. This matter was under consideration in the reorganization of the American Medical Association at St. Paul in 1901. Dr. C. A. L. Reed, whom many of you knew and loved, was in the Chair, and a motion had been made the year before to revise the constitution and by-laws, and that motion was laid on the table. At the next session the

Committee on Constitution and By-Laws reported certain amendments that were non-controversial, such as Dr. Bradley has so well brought to our attention, and Dr. Reed ruled that sufficient notice had been given by the previous session and they could be considered. I think that is a precedent that would rule us here. I think when the Reference Committee on Constitution and By-Laws has reported next year those sections to which Dr. Bradley refers can well be brought in and voted upon by the House of Delegates next year.

PRESIDENT SCOTT: I would like to ask Dr. McCormack how we are going to elect a President-Elect on Thursday.

SECRETARY McCORMACK: That matter was very carefully considered by the House of Delegates, if you will look back at the minutes, when the President-Elect was first created. Dr. Griffith was the presiding officer at the time and served for two years as President when the President-Elect was first selected, and it was very carefully considered and very thoroughly discussed. It was not considered that the President-Elect was an officer of the Association nor a member of the House of Delegates. He was to be the Chairman of the Committee on Scientific Work and appoint one other member to serve with him, and the Secretary served ex-officio, and they got up the program. The record is in the Secretary's office. The President-Elect only serves today, could only serve today in the House of Delegates; he could only have one day in the House of Delegates. I can see no reason in the world why he should be a member of the Council. The President and President-Elect are always notified of meetings of the Council, and I made a careful study of that, because Dr. Scott always asks me for the precedent when anything is happening, and I find that our Presidents have been present at one meeting of the Council out of five, since the Council and House of Delegates have been organized, but neither the President nor the President-Elect have been members of the Council. The President and President-Elect are not members of the Board of Trustees of the American Medical Association. I am not a member of the Council of the Southern Medical Association, as its President. I go to all the meetings and have an awfully good time listening to them talking, I am awfully proud of them, as I am when I attend meetings here, but the President and President-Elect are executives and don't belong to the business managing body of the Association. Their duties are very clearly fixed in the Constitution and By-Laws. The

President-Elect, not being an officer of the Association, there is no reason in the world for the provision in regard to him. We elect a President-Elect; we do it because we have done it for innumerable years. Under our British forebears and our own, custom has always consolidated into action, and we follow precedents when we don't have written constitutions and by-laws. Ours are very simple and we have had no difficulty about them. The very amiable and constructive way in which Dr. Bradley has presented them has made perfectly evident certain clerical corrections that should be made, and changes in principle the delegates evidently have not approved.

E. B. BRADLEY: I rise to a point of order. Amendment to the Constitution is provided for in the Constitution of the Kentucky State Medical Association. It reads as follows: "The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at that annual session, provided that such amendment shall have been presented in open meeting at the previous annual session and that it shall have been sent officially to each component county society at least two months before the session at which final action is to be taken."

I think the House of Delegates has voted to table this motion just one year too soon, unless I read that wrong.

SECRETARY McCORMACK: Mr. President, you can table a report at any time in the procedure.

E. B. BRADLEY: I didn't make a motion. I proposed certain amendments in writing to the Constitution and By-Laws, which says that the House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at that annual session, provided that such amendment shall have been presented in open meeting at the previous annual session, and that it shall have been sent officially to each component county society at least two months before the session at which final action is to be taken. I made no motion. I was presenting certain changes in the Constitution and By-Laws. In other words, you can't vote on it, for or against, until next year.

SECRETARY McCORMACK: I would like to be heard.

E. B. BRADLEY: I would like to hear the ruling of the Chair.

PRESIDENT SCOTT: We will hear Dr. McCormack. He wants to be heard.

SECRETARY McCORMACK: I would like to have Dr. Griffith's opinion about that point of order, because he is the best par-

liamentarian we have. A report of a committee was made, making certain suggestions regarding amendments to the Constitution and By-Laws. A motion was made to lay that on the table. That is always in order, and it is the first thing that is in order, and at any time in the procedure in any amendment that is offered to the Constitution in the Congress of the United States, which has the same provision, and in the American Medical Association and the other component societies of the United States, a motion to table is always in order, and as soon as anything is proposed, if it is the overwhelming opinion of the House that it would be an enormous waste of money and time to do the other things.

E. B. BRADLEY: That is the way it reads.

SECRETARY McCORMACK: Get the stenographer to read what you said.

E. B. BRADLEY: I said (this is the way it reads): "The following changes in the Constitution and By-Laws are hereby proposed: Changes proposed in the Constitution and By-Laws of the Kentucky State Medical Association as adopted at Paducah in 1902 as amended," and signed by E. B. Bradley.

I don't know that Robert's Rules of Order would put me out. I am just going by the Constitution of the Kentucky State Medical Society, which I have read through three or four times, and I think that you have voted on it one year too soon. I don't care, because it is evident you'll be voting the same way next year.

SECRETARY McCORMACK: Here is a proposition that has been overwhelmingly defeated. What is the use of going to the expense of advertising it, of sending it to all the county societies and carrying on a lot of correspondence when all you are doing is wasting time?

H. H. HUNT: I rise to a point of order. This report says, "Report of Special Committee to Review the Constitution." Maybe I'm wrong.

PRESIDENT SCOTT: Gentlemen, as a matter of fact this committee owes its existence to this House of Delegates. This committee has brought in a report to the House of Delegates, and by reason of its authority, the authority conferred on it by this House, this House has voted to table the report of that committee, which is the only way it can disapprove the report of the committee. Being a report which would have to lie over for another year, it cannot vote on the merits of it, but it can table it. I rule that this report has been tabled and cannot be presented by this House of Dele-

gates to the membership to lie over for another year. (Applause)

I may say that I am for it, but I think that is the law.

D. M. GRIFFITH, Owensboro: Mr. President, I want to bring one point before this body, and that is on the President-Elect. The purpose of electing a President-Elect is to familiarize him with the duties that he is to assume and to give him a year's time in which to familiarize himself with those duties. Prior to that, if I remember correctly, a man was elected today and took office tomorrow, and he spent a month, one-twelfth of his time, trying to get familiar with the duties he had to perform, and I think it was a very wise provision to elect a President-Elect. I don't think that point has been brought up. (Applause)

PRESIDENT SCOTT: The next order of business is the report of the Committee on Miscellaneous Business.

PAUL S. YORK, Glasgow: I won't burden you with the time it will take to go to the microphone. I have often wondered just what the jurisdiction of this committee happened to be. To the present date, nothing has come to my desk and I have nothing to report.

PRESIDENT SCOTT: The next order is the Report of the Committee on Resolutions.

NORVAL E. GREEN, Calvert City: I regret to say that our committee has no report to make as yet.

SECRETARY McCORMACK: I have a resolution here, and that committee will report it Thursday.

PRESIDENT SCOTT: I shall ask next for the report of the Committee on Hospital Standardization.

SAMUEL M. RICKMAN, Paris: Mr. President and Members of the House of Delegates, Ladies and Gentlemen: The Committee on Hospital Standardization, before the House of Delegates of 1940 of the Kentucky State Medical Association, wishes to submit the following:

1. The Committee regrets to report that only twenty-four hospitals out of forty-eight in the State of Kentucky are fully approved by the American College of Surgeons. This is a very poor rating, and we wish to report further that the hospitals not approved by this body are in the smaller center.

2. We believe, further, that the standards of a hospital, whether it be in a large medical center or in a smaller town, depend directly on the medical staff, and that this medical staff should be encouraged and advised in what capacity they might best serve in order to make the hos-

pital safe for the patient and thereby be fully approved.

3. We wish to submit, further, that the smaller hospitals have a difficult time in financing their hospitals. This may be due to the fact that the Nurses' Association has made it a point and is taking further steps to eliminate the nurses' training school from the smaller hospital. We contend that the management of this Association (that is the Nurses' Association), knows nothing of the problems of the smaller community, and in fact they are totally ignorant of the problems of the smaller community because they have made no survey of the needs, and therefore this Association is not capable of and should not have the ability to eliminate the nurses' training school in the smaller hospitals. If the nurses' training schools are taken away from the smaller hospitals, it will affect the standardization of the hospitals involved in the following manner:

(a) It will necessitate the hiring of either practical nurses or what is known as nurses' aids to carry out the doctors' orders. Of course, these two groups will be supervised by trained graduate nurses. Therefore, the community will eventually be filled with these two types of women and they, in the great majority of cases, will serve the public rather than the graduate trained nurses, thereby lowering the standards of the service of the hospital to the patient and the community.

(b) The grouping of training schools in the larger cities will tend to encourage the nurses graduated to remain in that center and thereby cause a scarcity of nurses in the smaller communities. If a graduate nurse is needed in a hurry, the doctor in charge will have to call the nurses' directory in the larger center and ask for a nurse whom he does not know, and in all probability he will get one of inferior ability, because the better nurses usually stay busy and only the unpopular ones will be able to go out on these calls. Further, if a nurse is located in one of the larger cities, for financial reasons she will not go to distant parts for service, for fear that she will have occasion to get something better in her own community.

(c) The committee contends that the nurses graduated in the smaller centers are as intelligent, as well equipped, and have more practice in taking care of the patient, as an individual, than the nurses graduated from the larger centers. We wish to state further, that, as doctors, all we ask the nurses to do is to carry out our orders, and as far as we are concerned, we

do not care whether they have a Ph. D. degree or are graduated from high school.

4. We further wish to report that the doctors in larger cities and hospitals in larger cities (I had better make it "some of the doctors and hospitals in larger cities") are not concerned with the problems of the smaller hospitals. This is due to competitive reasons, and for this reason there are those who might even advocate the cessation of the smaller hospitals. The doctors in the larger hospitals are not interested in doing missionary work for the smaller hospitals in the communities, and the smaller hospitals thereby suffer to a large extent because they are not interested in the standardization of the smaller hospitals themselves. Also the average small community does not know the importance of maintaining a standardized hospital. The people in the better income groups usually go to the larger centers for medical service and the lower income groups are too busy making a living to take this matter up. There should be an educational program to teach the community the value of a standardized hospital.

5. This committee laments the fact that the Nurses' Association of Kentucky has never tried to make any provisions for the nursing service for the lower and middle income groups and further, that the management of the Kentucky Nurses' Association seems to be more interested in the nurses living conditions than the patients themselves.

6. We approve of the Senate Bill 199 which was defeated in the General Assembly, regarding that all hospitals in Kentucky be licensed by the State Board of Health or some other governing body, i. e. Kentucky State Medical Association or Kentucky State Hospital Association. We recommend that this body be empowered to set up minimum standards, for hospital equipment, laboratory, nurses service and staff personal; that this body appoint a committee to help in the standardization of the hospitals in Kentucky and that this committee will survey the hospitals in the State; that the committee be given the power to approve or disapprove the hospitals in question; that the committee will take up with the management of the Kentucky Nurses' Association the matter of nursing service in Kentucky, that is, if a hospital desires to have a training school for nurses that the hospital be allowed to do so provided that the hospital in question meets the minimum requirements of the standardization

as set forth by the committee; that a committee from this body meet from time to time with the various hospitals and recommend changes necessary for the approval of the hospital in question.

7. The committee wishes to go on record as not being in favor of the elimination of the training schools from the smaller hospitals, and that a copy of this report be sent to the Nurses' Association for their consideration.

I wish to thank Dr. Brummett openly and personally for his aid given in this report.

Mr. President, I move that this report be accepted.

The motion was seconded.

PRESIDENT SCOTT: Dr. Rickman, I don't quite understand. You say before it is presented for adoption you wish to edit it somewhat.

S. M. RICKMAN: There are a few minor changes that should be made and a few points that should be rewritten.

PRESIDENT SCOTT: You just want to edit the report. In substance, what you have presented is your report.

S. M. RICKMAN: That is right.

PRESIDENT SCOTT: The Chair would like to ask how he proposes that this committee be named. He refers to a committee that the House is to name. Is that to be named by the President?

S. M. RICKMAN: What we had in mind is that we do not wish to take away from any community a hospital. The fact that twenty-four hospitals out of forty-eight are not approved by the American College of Surgeons is significant in that some of the hospitals are not up to standard. The committee does not wish to deprive any community of a hospital, but instead that the President of the State Medical Association appoint a committee, and this committee is to survey the various hospitals under question and not only give them advice but help them live up to the minimum requirements of the standardization.

PRESIDENT SCOTT: Is there a second that this be approved.

E. B. BRADLEY: I will second the motion.

PRESIDENT SCOTT: It is moved and seconded that this report be approved, carrying with it the authority of the President of the Association, which will be passed on to the President-Elect, to appoint such a committee. Is there any discussion of this?

W. B. ATKINSON: I would like to ask him to read those recommendations over once again so we all get them.

S. M. Rickman reread the recommendations in the report.

W. B. ATKINSON: You will find that the committee has recommended two things. The first thing is that the State Board of Health shall be empowered to set up standards for hospitals. I am very doubtful if this House of Delegates can allow the State Board of Health to do that.

SECRETARY McCORMACK: That is right. They can approve the legislation.

W. B. ATKINSON: We can recommend that such legislation be passed by the Kentucky Legislature.

The Doctor has also mentioned that only a few hospitals are not approved by the American College of Surgeons. The American College of Surgeons is a voluntary organization that has no standing in organized medicine. The thing has remarkable scientific standing, but it has no standing in organized medicine. The Doctor should have taken the approved hospitals of the American Medical Association. You will find there is a much larger group of them. The American College of Surgeons has certain hard and fast rules that it follows, while the American Medical Association has a Committee on Medical Education and Hospitals that takes into consideration the different sizes of the hospitals.

I believe that the Doctor's recommendation of a regular standing committee of the Kentucky State Medical Association to approve hospitals would be proper; the disapproval of the hospitals will have no legal standing, but the approval of the hospitals will be a little feather in the cap.

He has presented this thing to be voted on, and it should be divided up. I agree with him thoroughly that the purpose of the nursing board is for the benefit of the nurses, just as the Kentucky State Medical Association is first for the benefit of the people of Kentucky, and second for the doctors, but the nursing association is first for the nurses and second for the patient. You never hear of a trained nurse giving charity service.

The larger city hospitals are unconsciously or consciously trying to close up all of the smaller hospitals out in the rural districts. They may not admit it, but they are doing it, because all of them preach to their graduate nurses, "Stay in the city and specialize in anesthesia," and of all things in the world anesthesia should be absolutely in the hands of the medical profession. No doctor should ever consent to operate on a case where an anesthetic is given by a trained nurse unless no physician is available. They emphasize to them to specialize in anesthesia, tuberculosis, public health, or anything else and stay in the city because they can stand in the

halls and gossip, and I'd better stop now because I'm rabid on the subject.

PRESIDENT SCOTT: Discussion is still open. Dr. Turner is President of the Kentucky Hospital Association.

PAUL TURNER: I wish I had a copy of Dr. Rickman's report before discussing it so that each point might be taken up in order in an effort to tell you what the Kentucky State Hospital Association is endeavoring to do in trying to standardize the hospitals in the State of Kentucky. Unfortunately, as Dr. Rickman said, there are only twenty-eight of the hospitals in the state that are recognized as A-1 hospitals. Furthermore, I am sorry to say that a number of those hospitals, forty-eight, are not even members of the State Hospital Association. That being the case, it is rather difficult for the Association, in spite of the committees that have been appointed, to do very much toward helping the conditions that are known to be present in certain of these hospitals.

I want to make two points. The first is this: that I don't think there is any question but that Dr. Rickman is perfectly correct when he says that the hospital as it exists should be, in the main, carried on through the supervision of the medical profession. I have numbers of instances where certain of the hospitals appear to be run and their policies dictated by lay societies. I think that is bad; the results are not good. The medical profession must insist upon conducting the policies of its hospitals. In that way we will get the results that we need in supervision and treatment of patients, and so give the treatment to the patient that he deserves.

One other thing, and that is the essential point in having all physicians interested in their particular hospital. Staff meetings, I think, are very essential, and in those meetings the discussions that are so vital and help to maintain the standard of that particular hospital are important. If the entire medical profession is concerned and uses every effort to see that its hospitals carry on with the standards that are set forth by the American Medical Association, I believe that we will function much better than some of the hospitals are doing at the present time.

AUSTIN BELL, Hopkinsville: We are deeply interested in the success and the future of the small hospital. The doctor who preceded me has said that many numbers of the small hospitals did not belong to the Hospital Association. Many of them did belong to the Hospital Association for a long time, but they were discriminated against continually from year to year, and

every effort was put forth to penalize the small institution, until finally many of the small institutions withdrew or failed to subscribe to the Hospital Association. I, for one, am very much in favor of this Association taking some definite stand against the nurses' organization automatically closing the small training schools in the small hospitals. I feel that the nurses there are trained to serve the communities in which they will work, and they serve them much better than the refuse of the city trained nurses.

W. L. TYLER, Owensboro: I served on this committee faithfully for two or three years without any result, and I am glad the committee has been changed, because I hope they will get some result.

I don't know whether the men in the larger cities fully realize just what the people in the rural districts are up against in so far as giving adequate service to the sick people in a particular community is concerned. The nurses that were trained out in those hospitals in Hopkinsville and elsewhere where they didn't have adequate instructions for training have all been moved into Lexington and Louisville and Cincinnati and Evansville, and they are just as competent to train those people now as they were then. I realize many of the hospitals in the rural districts do not meet standardization, but, gentlemen of the medical profession, the thing that we are up against now, and have been for many years, is to render service to all of mankind, not just to the fellow in the big city. This is the question that needs a solution by the profession in the State of Kentucky. Out in some of the rural districts we have some men in hospitals who are just as competent, who may not have all the equipment, but it isn't treating the public fair unless some solution to the question of getting adequate nursing service to those people in the rural districts or in the smaller towns where the smaller hospitals are, is provided. I hope this Medical Association of the State of Kentucky will form some solution to this matter, because I think it is necessary.

SECRETARY McCORMACK: I don't think any subject could be discussed by the profession at this time that is more important than the one before us now. It is an idle thing to continue to train physicians as they are being trained today, as it would be to train soldiers as they are being trained today and then give them no planes, no guns, and no facilities with which to operate. It is impossible to practice certain specialties in the profession and certain activities of the profession without hospitals, and to say that we shall

have only large hospitals is flying in the very face of the problem. It would be like saying we would have no automobiles except big Lincolns and Packards. The small hospital occupies a place in our economy and in our civilization that we cannot do without. Many of the most important operations that are done in Kentucky are done in the small hospitals.

As I look at you gentlemen all over the room, I know there are many of you who have small hospitals that are just as creditable, where good work is being done just as well and you are just as capable of doing it as anything that is done anywhere. If there is something you don't want to undertake in brain surgery, or something of that sort, you send it somewhere else. We all know that is a fact, and we know that the people in those communities are like pigeons; they can't fly far because they haven't the wherewithal to grease their wings to fly if it were desirable, and it is not desirable under any circumstances. The small hospital is essential, but at the same time that that is true, both in Louisville and in some of our southeastern and eastern towns in Kentucky, hospitals have been hastily determined upon as a solution of the problem. We have hospitals over grocery stores, we have hospitals in abandoned buildings, or in buildings that would have been abandoned if they hadn't been used for hospitals. They are not hospitals, they are not creditable institutions, they are not the kind of things that you gentlemen are interested in and proud of and that you are making a reputation in the profession in; they are reflections on all of us and it was for the purpose of registering hospitals, as is done in almost every state in the Union, and in Kentucky every medical thing is under the control of medicine, up to now. It was for the purpose of registering hospitals so that the small hospitals of the state could be protected and perpetuated, so that there could be the increase in their facilities that they need, and we are finding, for example, that in a great many counties in the state since the non-profit hospital bill was passed, there are a great many hospitals that are being crowded today that couldn't possibly raise money before. We are going to have to make the arrangements so that recognized hospitals such as are available in almost every section of the state can be utilized and made available so new hospitals will not only be constructed when there is really need for them, but so that the existing hospitals will be protected as an entity the way they deserve to be protected.

Of course, a thing that would be absolutely outrageous would be to pass a law that because a man has a hospital in Squeedunk no other hospital shall be constructed there, unless he lets all the reputable and competent men utilize the hospital facilities of that hospital upon the payment of the necessary fee for its support; otherwise, we would soon have a monopoly in the hospital system, which of course we wouldn't countenance and we don't want to countenance, but the irksome regulations that Dr. Bell referred to and Dr. Tyler referred to and Dr. Rickman was talking about are made by voluntary bodies. You must all remember that the American College of Surgeons, the Council on Medical Education and Hospitals of the A. M. A. and the resolutions passed by our Association are those of voluntary bodies. When we want to do something regulatory we have to do it by some constituted legal authority so the decision will be legal. We have in Kentucky an agency that belongs to us. We own it, we select its members, and we have selected its members so the majority of them are owners or operators of small hospitals and are naturally interested in the problem. When the State Hospital Association brought a bill to provide for the registration of hospitals before the last legislature, we were very much surprised that practically all the opposition to it, except a few folks who oppose everything, came from a few small hospitals that thought they were being discriminated against. They had been by the voluntary agencies; they can't be by a legal agency, because if they were it would be set aside by a decision in a court of law. It was just that thing in Dr. Rickman's recommendations brought before you tonight, with the editing that he refers to, that is entirely along the constructive line that the profession needs to take in this awfully important element in our work.

There is one other thing that ought to give us pause. We know that there are tremendous influences in the hospital organization that believe that the control of medical service should be entirely a hospital matter, that hospital staffs should be paid by the patient to the hospital and the hospital should pay salaries to the doctors who work in the hospital. Of course, that would mean that the doctors on that staff would soon be employees of the institution and would be like any other laborer employed and could be hired and fired and there would be no free choice of physician or anything else, and we are opposed to

that eternally and everlastingly.

I know you will be glad to know that Dr. Abell in the report I read to you this afternoon, referred to this particularly and talked about it. He explained that this was really the most important thing that confronted the profession, that the hospital is the agency in which we as a profession are tremendously interested, and the support of the small hospital which is always a burden on its owner, a very great burden, and takes a great deal of the time and attention that he could otherwise give to purely professional things, but that he deserves a tremendous amount of credit for supporting these hospitals. Dr. Abell and our President have frequently in previous discussions emphasized the importance of that very thing and the importance of the preservation of the effective small hospital, and of stopping absolutely the utterly disreputable places that call themselves hospitals.

Now we have in Kentucky just at present one chain hospital. We were threatened with opening another one in Ashland recently. That was stopped by injunction. We have one in Louisville that is scattered around all over the United States, a quack institution that we can't close under our present law, and we need this modification of the law. It is very important for the members of the House of Delegates and the members of the profession to talk to their legislators about it so they will understand that this is for the protection of the people, that a hospital located in a butcher shop or a grocery store is not a hospital, but that the small hospitals of this state are of essential value, and I know from personal experience that you can train nurses in them. I don't deserve any of the credit for doing it, but Dr. South as superintendent of my hospital at Bowling Green, as I know delegates from Bowling Green can testify, trained a lot of good nurses. Some of them hadn't had a common school education, but they got it there. Their primary interest was nursing, and every one of them that isn't married is now an executive nurse in a hospital somewhere in the United States. We are proud of the whole bunch of them. That is true, I know, in Hopkinsville and in Paris and in Owensboro and many of the other smaller towns of the state, and we need to get those nurses in our rural districts that are available to our rural people.

I hope very much that the Association will go on record along the constructive lines that have been reported by this committee.

AUSTIN BLOCH, Louisville: I don't want to prolong a very interesting discussion unnecessarily, but I would like to comment on two points. The first is that the question of inadequately equipped hospitals is not a rural question entirely. In Louisville I have seen a hospital without an ice-box and I have also seen a hospital without any plumbing on the first floor, so that it is not a question of discrimination against the rural community that must take what it can get or do without. If legislation is ever enacted, it is a question of eliminating bad hospitals where good ones might be.

The other point is that the medical profession themselves are somewhat to blame for the fact that they lost control of the policy of the hospital. In the larger cities, New York certainly, the doctors, by restricting the availability of hospitalization to the patients of various doctors, have contributed to a condition which makes them the victims of the lay boards of the hospitals, so that they have to fight and strive to obtain hospital facilities for their patients and are compelled to accede to any demands that the lay boards dictate to the hospital.

SHELBY G. CARR, Richmond: I want to call for the question. A motion was made to accept his report and I would like to make a motion after that is disposed of.

PRESIDENT SCOTT: The motion has been made that the report be accepted, and it has been seconded. Are you ready for the question?

S. G. CARR: I don't want to amend his report because that is what the committee finds, but I would like to make a motion after that report is accepted.

PRESIDENT SCOTT: All in favor indicate by saying "aye"; opposed "no." The report is approved. The appointment of this committee will be in the hands of Dr. Bell. It is really a committee appointed by the President every year, and Dr. Bell is particularly interested in it and he will, in appointing his committees, appoint that one.

S. G. CARR: Being an owner of a small hospital, if I made a motion that we doctors place ourselves under the control of the politicians at Frankfort on how to practice medicine, you would all run me out of here. For the same reason I think that is why Bill 199 was defeated pertaining to hospitals. This committee has found that the control of hospitals, in that certain studies should be made, should be put under the control of the Public Health Department. As I understand it, the Kentucky State Medical Association does not

have any recommendations to any little hospital that they might try to build themselves to and then be accredited by the Kentucky State Medical Association.

I would like to make a motion that the President of the Kentucky State Medical Association appoint a committee to make some recommendations which may be given to all the hospitals, and if they meet with those recommendations, then they be given a certificate accrediting them from the Kentucky State Medical Association, and I make that in the form of a motion.

PRESIDENT SCOTT: I think essentially that is what Dr. Rickman dealt with.

S. G. CARR: As I understand it, his is just a report that what they found be given to the public.

PRESIDENT SCOTT: That was shown to be impossible, and I think his report is, in summary, this: that the matter or the status of this small hospital shall be taken up by this committee and that the condition shall be looked into by the committee and that recommendations for their control shall be made by the committee. Is that right?

S. M. RICKMAN: I don't see that there is really much difference.

S. G. CARR: I will withdraw that. I misunderstood him.

D. M. GRIFFITH: Mr. President, inasmuch as you automatically go out of office at tomorrow morning's session, I move that this body give you a rising vote of thanks for your efficiency, fair and impartial rulings.

SECRETARY McCORMACK: All in favor of that motion make it known by rising. (Applause) The motion is carried without a negative vote.

PRESIDENT SCOTT: I want to say to you that I appreciate immensely Dr. Griffith's motion and the unanimous way in which it was carried and your splendid cooperation and the pleasant way that you have treated me. Thank you very much. (Applause)

The House will now stand adjourned until Thursday morning at eight o'clock.

The House adjourned at 10:05 p. m.

HOUSE OF DELEGATES

THIRD SESSION, THURSDAY,
SEPTEMBER 19, 1940

The third and final session of the House of Delegates convened at 8:00 a. m. in the Gold Room of the Lafayette Hotel, Austin Bell, Hopkinsville, the President, presiding.

PRESIDENT BELL: The meeting will please come to order.

The first order of business this morning is the roll call. Will the Secretary call the roll?

Secretary McCormack called the roll.

SECRETARY McCORMACK: There are 104 delegates present who have answered the roll call, and a quorum is present, Mr. President.

PRESIDENT BELL: We will now have the reading of the minutes of the last session.

A motion was regularly made, seconded, and carried, that the reading of the minutes be dispensed with.

PRESIDENT BELL: I will appoint as Tellers, Dr. Griffith of Owensboro, Dr. Dowden of Louisville, and Dr. Morton of Madisonville.

Nominations are now in order for President for the next year.

JAMES H. PRITCHETT, Louisville: I stand before you this morning to fulfill a pledge and a promise made in 1936 and again in 1938 and again in March, 1940, to a group of men of this Association to support and nominate, in the event that I was a delegate, a man who had on two previous occasions declined to permit his name to be presented as a candidate for the high office of President-Elect. If there be one in this audience this morning who can ever say that in private conversation or public discussion my actions have belied my words, let him stand forth. Inasmuch as no one stands forth, I deem it my duty in view of the pledge I made on two previous occasions before any other nominee, to my knowledge has been put forth, to nominate a man whom you all know for this high office.

As to his qualifications, they are exceptional. During the time that he was a delegate of this State Association, no task was too important, no job too menial for him to perform. So meek has he been in his work before us that many of you may not be at all familiar with the vast amount of work, and important work, I may add, that he has done. For this reason, again let me say it is my duty, on account of the pledge that I took on these three occasions, to nominate him.

The man I have in mind has had numerous honors conferred, but because those honors were justly deserved. He has been on numerous occasions, as I said before, a delegate to the Kentucky State Medical Association; he has been also, in some years, a delegate to the A. M. A. where his sterling worth won for him the applause of many men, which later led to another honor, which I shall mention in a moment. At the present time, however, he is a Councilor of the Southern Medical Association, and also at the same time he is now a Trustee of the A. M. A., a very important office.

Mr. President, I have the duty and the honor and the privilege to place in nomination for President-Elect, Dr. E. L. Henderson, of Louisville. (Applause).

H. H. HUNT, Mayfield: I second the nomination of Dr. Henderson.

PRESIDENT BELL: Are there other nominations at this time?

CHAUNCEY W. DOWDEN, Louisville: Each year it becomes necessary for the Kentucky State Medical Association to seek a President. It has been customary heretofore that this high office be filled from various sections of the state. As it happens, Louisville this year is entitled to the presidency. That being true, following the usual procedure, the Louisville delegation had its meeting. At that meeting three names were proposed, and following the usual procedure, on balloting it was agreed that the low man drop out, and then the next two be balloted upon, and the final man receiving the high vote was to be the choice of the Louisville delegation.

I think most of us were put on the spot. I know that I was. Of the three men proposed, it made not the slightest difference to me which was selected. They were all splendid men, they would all make wonderful presidents, they were all friends of mine, and I would vote for either one of them were they not run against one another. That makes it very difficult to know what to do in a situation in which two men have come up, both of whom are my friends and both of whom I favor. I feel, therefore, that it isn't a question at this time of lauding any particular ability or accomplishments that either of these men may have. I do feel, however, that a very definite principle is involved. A procedure has been established. It amounts almost to a precedent, and I feel that should we break that precedent, the future damage or ill will if you want to call it that, not only to the State Association but certainly to our Louisville delegation, would be bad. It is not my purpose, therefore, in presenting the name that was selected by the Louisville delegation to attempt to show you how much better in every way he is than Dr. Henderson; I don't think he is. I think Dr. Henderson is wonderful and I am for him; he is one of my very best friends, but, as I say, I think we should all recognize the principle if not actually a precedent.

I want to take just this opportunity to read from the minutes of the meeting of the Louisville delegation.

"Chairman Heflin called for nominations for President of the Kentucky State Medi-

cal Association." I shan't name the names placed in nomination. "There were no further nominations and the ballots were passed. It was agreed that if no one candidate received a clear majority, that the one with the lowest number of votes be dropped and a second ballot be taken. No clear majority was received by any candidate on the first ballot. The lowest was dropped, and on the second ballot Dr. Oscar Miller was elected."

I want you to let that sink in. "Dr. James Stites made a motion that we abide by the unit rule in casting our delegation vote at the state meeting for the presidential election. This motion was seconded and passed. Dr. Guy Aud made a motion that the unit rule apply for all elective offices. This motion was seconded and passed."

Gentlemen, there is a situation. Do with it what you will. I feel that it is a rather ugly situation, one certainly not to be desired. It doesn't concern, as far as I am concerned and as far as most of the members of the delegation are concerned, which of the two men is better or more desirable, but it does represent the vote of the Jefferson County delegation who have the privilege and the honor at this time of presenting their choice for a President. I feel that this should have been entirely unanimous and only the one name go up, with all due respect and love and affection for Elmer Henderson, which I know that he knows I have for him. On the other hand, since other nominations have been made, I think that that probably relieves every man from his promise in the Louisville delegation, and that it makes it more or less of a marathon and no doubt other men will come forward with nominations, there may be some that will be more desirable to the general delegation than either of the two men that may be presented, and if that is true, may the best man win.

I nominate Dr. Oscar O. Miller for President-Elect.

The nomination was seconded by Charles M. Edelen, Louisville.

JOHN W. SCOTT, Lexington: May I add a second to Dr. Miller's nomination. I subscribe to everything that Dr. Dowden has said about Dr. Miller and also about Dr. Henderson. I count him one of my friends. I think he is a highly efficient administrator; I think he will make a splendid President of this Association, but I think Dr. Dowden in emphasizing that has failed to emphasize, as he might have done, the tremendous virtues of Dr. Miller. Dr. Miller would grace this presidency in a way that

has not been exceeded at least for many years. He is a man whom you all know. His work has been quieter and not along organization lines. There is something to be said for a President of this Association who is not along organization lines, and I wish most emphatically to add what influence I have to the nomination of Dr. Miller.

I. T. FUGATE, Louisville: I was one of the men present at the so-called caucus at which we selected Dr. Miller. I will say, gentlemen, that this was never unanimous and I have no ill feeling against anyone for President, but it was understood that there were two dissenting votes, if they proposed to make this unanimous from Jefferson County. Therefore, I just rise that there might be some correction if you have the opinion that the caucus was unanimous for one man. I am not seconding either man for President, but just making a matter of correction.

J. H. PRITCHETT: I rise to a point of order. May I be heard for a few minutes?

PRESIDENT BELL: Will you state your point of order?

J. H. PRITCHETT: I wish to make one addition to Dr. Dowden's statement, which was deleted from his report of the Jefferson County caucus. Am I in order or not? If not, I will take my seat.

The consensus of the House was to let Dr. Pritchett speak.

J. H. PRITCHETT: Unfortunately, the family skeleton has been dragged out of the closet and I find one bone missing. Dr. Troutman, as Secretary, Dr. Heflin, as President of the Jefferson County Medical Society, remember distinctly that I asked for an oral vote, which was my right and privilege at a caucus. That was denied, and I am told on legal advice from men in authority who should know, not medical men but legal men, since that time, that such procedure therefore did not bind me, as there was a precedent established at that meeting. That is also something to think about.

PRESIDENT BELL: Are there any other nominations at this time?

The question was called for.

PRESIDENT BELL: The Chair waits to see if there are other nominations.

PAUL S. YORK, Glasgow: I move that nominations close and the ballot be spread.

The motion was seconded and carried.

SECRETARY McCORMACK: The nominees are E. L. Henderson of Louisville and O. O. Miller of Louisville. There are 104 delegates present. It is very important that nobody cast a ballot except he be an accredited

delegate. If there is a delegate present who has not answered the roll call, I hope he will answer now.

PRESIDENT BELL: If there is any delegate present whose alternate answered for him in the first place, I think he should automatically eliminate himself.

The Tellers will now spread the ballot.

W. B. ATKINSON, Campbellsville: Mr. President, there was a mistake in the Taylor County credentials and Dr. M. M. Hall was the delegate, while Dr. E. L. Gowdy was the alternate. Dr. Hall is here.

PRESIDENT BELL: Has the alternate been seated and has he served in that capacity during this meeting?

SECRETARY McCORMACK: No, nobody has answered for that county during this meeting.

Additional delegates registered present.

SECRETARY McCORMACK: There are now 109 present.

The ballots were spread.

PRESIDENT BELL: The Tellers will now collect the ballots.

SECRETARY McCORMACK: Has every delegate received a ballot?

PRESIDENT BELL: Has everyone voted who wishes to vote? If so, the ballots are closed.

The ballots have been cast and counted, and they stand as follows: 76 for Dr. Henderson, 30 for Dr. Miller, 2 blanks, and 1 vote cast for an ineligible candidate. Dr. Henderson is declared elected President-Elect of the Kentucky State Medical Association for the ensuing year. (Applause).

C. W. DOWDEN: I want to move you, sir, that the vote for Dr. Henderson be made unanimous.

The motion was seconded by Dr. Scott and Dr. Edelen and carried unanimously.

PRESIDENT BELL: Dr. Ernest Bradley and Dr. D. M. Clardy will escort the new President-Elect to the platform. I am advised Dr. Henderson was called last night to a meeting of the Board of Directors of the American Medical Association in Chicago and will not be present.

Nominations are now in order for First Vice-President.

SECRETARY McCORMACK: Three Vice-Presidents are nominated, one from Eastern Kentucky, one from Western Kentucky, and one from Louisville.

W. B. ATKINSON, Campbellsville: Mr. President, I want to nominate a man from the State of Kentucky. He is one of the most representative doctors of the old-time general practitioners who really takes care of his patients, that I know of in the State Medical Association. He has been a

member for several years, probably thirty-five. He is the type of man who used to ride into town, in the horse and buggy days, to the county society meeting in the afternoon in December and then go home and finish his work after supper. He also, for years, has acted as part-time county health officer, at the very large and munificent sum of \$150 per year, perhaps. I want to place in nomination the name of Dr. Clement V. Hiestand, of Campbellsville. I don't care whether you say he is from Louisville or the eastern or western part of the state, he will be an honor to us if he is elected Vice-President.

PAUL K. McKENNA: I want to make this real short. We have a man from Montgomery County, an old pioneer from the horse and buggy days, and the secretary of our county society ever since I have been a member of it. He has been very active, a hard worker, and he never has failed to do his duty by the county or the state society. He has been elected Senator from our district and is a very able man. I would like to place in nomination the name of Dr. D. H. Bush, of Mount Sterling.

J. B. LUKINS, Louisville: We are entitled to three Vice-Presidents from different sections of the state. Dr. Parks, of Harlan, comes from the far eastern part. He is one of the leading practitioners of the State of Kentucky. He is a fine fellow. He has never had any official preference whatever, and I would like to place in nomination the name of Dr. W. R. Parks, of Harlan, Kentucky, for one of our Vice-Presidents.

A. CLAYTON McCARTY, Louisville: The man I wish to place in nomination doesn't have a horse and buggy, and right here on this floor this morning he said, twice, he was from Fleming County, but we still claim him in Jefferson County. He is at present President of the Jefferson County Medical Society, and I would like to nominate from Louisville Dr. E. L. Heflin for Vice-President.

E. L. GATES, Greenville: I would like to place in nomination a man from Western Kentucky, from way out in the western part, and he has been a member of the society for many years. That is Dr. Gary of Hopkinsville.

V. A. STILLEY, Benton: I would like to second the nomination of Dr. Gary.

J. W. STOVALL, Grayson: I move the nominations be closed.

SECRETARY McCORMACK: Mr. President, there is only one nomination from Western Kentucky and one from Louisville, Kentucky.

PRESIDENT BELL: A motion has been made that nominations close.

The motion was seconded and carried unanimously.

SECRETARY McCORMACK: If someone will make a motion that the Secretary be authorized to cast the ballot for the candidates from Western Kentucky and from Louisville, we will elect two of them and then a ballot can be cast between the candidates from the other section.

C. A. VANCE, Lexington: Is either of them a delegate?

SECRETARY McCORMACK: Neither of them is a delegate.

C. A. VANCE: I so move.

The motion was seconded by Dr. Chauncey Dowden and carried.

PRESIDENT BELL: The ballot will now be spread for the other Vice-President. The Secretary has cast the ballot of the Association for Dr. Heflin and Dr. Gary representing their respective sections of the state, and I declare them elected.

SECRETARY McCORMACK: The nominees are Dr. Hiestand of Campbellsville, Dr. Bush of Mount Sterling, and Dr. Parks of Harlan.

LOUIS FRANK, Louisville: Mr. President, while the ballot is being spread, I simply rose, having the privilege of the floor to talk occasionally, to ask the President if under the unit rule it is not compulsory, or at least is it not right and proper, for the chairman of the delegation to cast the ballots of all those composing that delegation. That is usually done when certified to and it is done in all political delegations.

SECRETARY McCORMACK: But, even there they can always call for a poll.

LOUIS FRANK: They may call for a poll. I simply rise to ask a question. That was very forcefully called to my mind in the recent Democratic Convention, in which I think gentlemen who did not desire to vote as per instructions had their ballot just the same, under the democratic idea of the majority rule. I did not bring that up before this election. I simply want to bring it up at this time; possibly for future use the precedent should be set.

One other point that I should like to bring forward is this: that under our Constitution and By-Laws nominations for President of this Association must be made by call of counties, and under parliamentary rule it is not possible to suspend such a proceeding. I think if you will consult Robert's Rules of Order, which control this body, you will find that is correct. If you will consult the Constitution you will find it specifically calls for nomination for President by call of counties.

PRESIDENT BELL: The Chairman wishes to state that according to the Constitution the latter statement is correct. According strictly to the Constitution I do not feel that the first statement Dr. Frank made is correct, and that would be my ruling. If the House desires to rescind this action and to cast the ballot by county, I think it has a perfect right to do it.

JAMES A. ORR, Paris: I move you, sir, that the ballot be allowed to stand as it is.

The motion was seconded and carried.

SECRETARY McCORMACK: The candidates are Dr. Heistand from Campbellsville, Dr. Parks from Harlan, and Dr. Bush from Mt. Sterling.

E. B. BRADLEY: Mr. President, as a recent student of the Constitution, I wish to confuse the issue a little more by saying that nominations for President shall be called for by counties. We have nothing in the Constitution that allows us to elect a President-Elect. It is confused so now that of course I am in favor of letting the election stand.

PRESIDENT BELL: With this confusion and no precedent to go by, we will let the ballot stand. (Laughter)

SECRETARY McCORMACK: We have been asked who the nominees are: Dr. Heistand from Campbellsville; Dr. Bush from Mount Sterling and Dr. Parks from Harlan.

The ballot was spread.

PRESIDENT BELL: Your Secretary will now state the result of the ballot.

SECRETARY McCORMACK: The ballot is: Parks 42, Heistand 26 and Bush 26, blanks 4. Another ballot will have to be cast and nobody is dropped. The ballot will be cast for the same three candidates.

J. A. ORR: Under our rules, isn't the law man dropped?

SECRETARY McCORMACK: They tied for low; both of them got 26.

The ballot was spread again.

SECRETARY McCORMACK: The three candidates are Dr. Heistand from Campbellsville, Dr. Parks from Harlan, Dr. Bush from Mount Sterling.

PRESIDENT BELL: The Secretary will announce the ballot.

SECRETARY McCORMACK: The ballot is Parks, 48, Heistand, 25, Bush, 22. The ballot will now be cast between Dr. Parks and Dr. Heistand the first from Harlan and the second from Campbellsville.

W. B. ATKINSON: Hasn't the first man a clear majority?

SECRETARY McCORMACK: Yes, he is elected.

W. B. ATKINSON: I move it be made unanimous.

SECRETARY McCORMACK: The Chair rules that there will have to be another ballot.

SECRETARY McCORMACK: The ballot will be cast between Dr. Parks of Harlan and Dr. Heistand of Campbellsville.

The ballot was spread.

SECRETARY McCORMACK: Dr. Parks on this ballot received 57 votes and Dr. Heistand 33.

PRESIDENT BELL: Dr. Parks is declared elected.

A motion was regularly made, seconded and carried, that the election of Dr. Parks be made unanimous.

SECRETARY McCORMACK: The election of two delegates to the American Medical Association. The present delegates are Dr. J. Duffy Hancock of Louisville and Dr. A. T. McCormack of Louisville. The election is for two years.

PRESIDENT BELL: Nominations are now in order.

A. CLAYTON McCARTY, Louisville: Can you nominate two at once? I nominate Dr. Duffy Hancock of Louisville for re-election.

JAMES H. PRITCHETT, Louisville. I nominate Dr. A. T. McCormack.

PRESIDENT BELL: Are there any other nominations?

CHAUNCEY W. DOWDEN, Louisville: I move the nominations be closed.

ERNEST B. BRADLEY, Lexington: I hate to do this, but the present Constitution says you can't nominate but half of them—not more than half—so this is two-thirds according to the present Constitution.

SECRETARY McCORMACK: I don't think there is any difficulty about that. Dr. Simpson is the other delegate and Dr. Hancock and I will be a half.

PRESIDENT BELL: As our official parliamentarian, I am going to get Dr. Bradley to rule on this for me. The ballot will now be spread for these two candidates.

E. B. BRADLEY: We have done this so long now we have gotten used to it.

D. M. GRIFFITH, Owensboro: I move the President cast the ballot for the two candidates.

The motion was seconded.

PRESIDENT BELL: You have heard the motion. The question is that the President cast the ballot for these two candidates, and there are only two candidates. All in favor of this say "aye:" opposed "no." It is carried, and it is my pleasure to cast the ballots for the election of these two delegates, Dr. McCormack and Dr. Hancock.

SECRETARY McCORMACK: The next vacancy is for a member of the Council from

the Second District to succeed Dr. D. M. Griffith of Owensboro.

PRESIDENT BELL: Nominations are in order.

J. I. GREENWELL, New Haven: I nominate Dr. Griffith of Owensboro to succeed himself.

The nomination was seconded by Dr. Dowden.

PRESIDENT BELL: Are there any other nominations?

A motion was made by Dr. McCormack, regularly seconded and carried, that the nominations be closed and the Secretary cast the ballot. The Secretary cast the ballot, and the President declared Dr. D. M. Griffith, Owensboro, elected as Councilor from the Second District.

PRESIDENT BELL: There is another Councilor. Nominations are in order for a Councilor to succeed Dr. Greenwell, Fourth District.

JAMES A. ORR, Paris: I move Dr. Greenwell be elected to succeed himself.

A motion was regularly made, seconded, and carried, that the nominations be closed and the Secretary cast the ballot. The Secretary cast the ballot and the President declared Dr. J. I. Greenwell, New Haven, elected as Councilor of the Fourth District to succeed himself.

PRESIDENT BELL: Orator in Surgery is next in order.

B. W. SMOCK, Louisville: As a delegate from the County of Jefferson, it is indeed a privilege and a pleasure to present before this society, in nomination for Orator in Surgery, one of God's noblemen, one of our outstanding surgeons, and one of our most beloved citizens, Dr. Guy Aud.

The nomination was seconded by Dr. C. W. Dowden and Dr. D. M. Griffith.

D. M. GRIFFITH: I second that nomination with a great deal of pleasure.

PRESIDENT BELL: Are there other nominations? If not, a motion is in order to close them.

J. A. ORR: I move the nominations be closed and the Secretary be instructed to cast the ballot.

The motion was seconded and carried and the Secretary cast the ballot.

PRESIDENT BELL: Dr. Aud is declared elected Orator in Surgery.

Nominations are in order for Orator in Medicine.

SECRETARY McCORMACK: I would like to nominate Dr. Thornton Scott of Lexington.

PRESIDENT BELL: Are there other nominations?

ERNEST B. BRADLEY: I move the nominations be closed and the Secretary cast the ballot.

The motion was seconded and carried and the Secretary cast the ballot.

PRESIDENT BELL: Dr. Thornton Scott is elected Orator in Medicine.

JOHN W. SCOTT, Lexington: I hope I am not out of order in expressing my great appreciation of the honor this House has done my son. He is not here to speak for himself.

PRESIDENT BELL: Place of meeting is next. We will have nominations for the place to hold our next meeting.

C. A. VANCE, Lexington: The Association meets by Constitution at Louisville, doesn't it?

E. L. HEFLIN, Louisville: The Jefferson County Medical Society would like to extend a most hearty welcome to the Kentucky State Medical Association to meet in Louisville next year. We hope you will come, and we will try to show you a good time.

SECRETARY McCORMACK: I have a letter from the Mayor of Louisville, also extending an invitation.

September 9, 1940

Kentucky State Medical Association,
In Annual Session,
Lexington, Kentucky.

Dear Members:

As Mayor of the City of Louisville and personally, I am pleased to extend a cordial invitation to the Kentucky State Medical Association to meet in Louisville in 1941.

Your local members are most anxious to be accorded the honor of entertaining you in the City of Louisville.

Louisville has long demonstrated that it is the best equipped convention city in the State and a warm welcome awaits you here.

This invitation comes as a sincere appeal from the people of this city and I assure you of my unqualified personal and official interest.

Sincerely yours,

(Signed) Joseph D. Scholtz,
Mayor of Louisville.

As we go there automatically, I move that we accept the invitation.

PRESIDENT BELL: Do I hear a motion to close the nominations?

DR. PRITCHETT: I make such a motion, and that the Secretary cast the ballot.

The motion was seconded and carried and the Secretary cast the ballot.

PRESIDENT BELL: Louisville has been selected as the next meeting place.

SECRETARY McCORMACK: I would like to call the attention of the members present to the fact that the best part of the scientific session is going to be held today over

in the regular room, and there are several other things to be taken care of here. There are several things yet to be reported, the Committee on Resolutions, and possibly some others.

PRESIDENT BELL: The Committee on Resolutions will now make its report.

NORVAL E. GREEN, Calvert City: The Committee on Resolutions, which reported progress the first day of the session, is now ready to make its final report. This Committee has acted favorably upon the issue of birth control, by a vote of two-thirds majority. With your permission I will read again the proposed resolution, with a minor revision.

"WHEREAS, Contraception, used to save life and promote health, is an important adjunct to the practice of medicine, and

"WHEREAS, The prescription of contraceptives is properly a function of the medical profession, and

"WHEREAS, The American Gynecological Society in 1935 recommended, as of obvious importance, medical leadership and control with respect to contraception as a therapeutic measure, and the American Neurological Association in 1936 and 1937 recognized contraception as a vital part of preventive medicine, and urged the American Medical Association to assume leadership in this regard, and in 1937 the American Medical Association went on record favoring the assumption by physicians of leadership with respect to the control of conception, be it

"RESOLVED, That the Kentucky Medical Association recommend the prescription of scientific contraceptives by the physicians of this state where pregnancies are contraindicated,"

and that last paragraph has been revised to read:

"RESOLVED, That in those cases where the attending physician believes that future pregnancies will be detrimental to the patient, the Kentucky State Medical Association approves the use of contraceptive advice.

"And be it further RESOLVED, That the Kentucky State Medical Association approves in principle the prescription of scientific contraceptives as a part of the preventive medical services in this state."

Mr. Chairman, I recommend that this resolution be submitted to the House of Delegates for a vote.

PRESIDENT BELL: You have heard the motion. Is there a second?

H. K. BUTTERMORE, Liggett: I move that the resolution be tabled.

The motion was seconded.

PRESIDENT BELL: You have heard the motion that the resolution be tabled. All in favor say "aye"; opposed "no." A division. Let's have a standing vote. All in favor stand.

J. A. ORR: Would it be out of order to call for discussion of that matter?

PRESIDENT BELL: It is not debatable.

SECRETARY McCORMACK: The motion is to lay on the table.

PRESIDENT BELL: All those in favor of tabling the resolution will stand. (42). All opposed to it please stand. (20). The vote is 42 to 20. The motion to table is carried.

SECRETARY McCORMACK: I think the Committee on the JOURNAL has not reported.

J. E. EDWARDS, Lancaster: In order to hasten things I will file this report without reading it.

REPORT OF COMMITTEE ON THE JOURNAL

The Kentucky Medical Journal is owned, financed, edited, and published by the Kentucky Medical Association. Whatever praise there may be or whatever criticism there may be is for the Kentucky Medical Association. The Editor and the Advisory Board are ready and willing to make the best JOURNAL, possible with the funds furnished by this Association.

Your Committee has examined the previous report made by the committee at the last annual meeting, and heartily endorses the suggestions made by it, and since they refer to the publication of papers and discussions, recommends that these suggestions be kept constantly in mind. We believe the JOURNAL to be of inestimable value to the members of the Association, and recommend its continual and constant use.

(Signed) J. E. Edwards, Chairman

W. Fayette Owsley

SECRETARY McCORMACK: I move the report of the Committee be filed and printed in the minutes.

The motion was seconded and carried.

The amendments to the Constitution and By-Laws with the controversial sections removed, which Dr. Bradley presented and which will be ready for action at the Louisville Session in 1941 when and if reported by the Reference Committee on Constitution and By-Laws.

CONSTITUTION

Article VIII, Section 1

Amend to read: The Officers of the Association shall be a President, President-Elect, three Vice-Presidents, a Secretary, a Treasurer and eleven Councilors.

Section 2. Amend to read:

The President-Elect and the Vice Presidents shall be elected for a term of one year. The Secretary, Treasurer, and the Councilors shall be elected for terms of five years each, Councilors being divided into classes; that two shall be elected each year except for each fifth year when three shall be elected. All of these officers shall serve until their successors are elected and installed.

Section 3.

The Officers of the Association shall be elected by the House of Delegates on the morning of the last day of the Annual Session, but no Delegate shall be eligible to any office named in the preceding section except that of Councilor, and no person shall be eligible to any office who has not been a member of the Association for the past two years.

BY-LAWS

Chapter 1. Section 2. Honorary Members.

Any physician possessed of scientific attainments who is a member of a constituent State Medical Association of the American Medical Association, and who has participated in the Program of the Scientific Session and who is not a citizen of Kentucky may, by unanimous vote of the House of Delegates be elected to honorary membership. Honorary members shall be entitled to the privileges of the floor in all scientific sessions.

Make present Section 1, Section 3.

Make present Section 2, Section 4.

Make present Section 3, Section 5.

Make present Section 4, Section 6.
Section 1.

Change the first sentence to read:

Section 1. The general meeting shall include all registered members, honorary members and guests who shall have equal right to participate in the scientific proceedings and discussions.

Add to By-Laws, Chapter IV, at the end of Section 1, the following paragraph:

The House of Delegates may be called into special session by the President with the approval of the Council, and a special session of the House of Delegates shall be called by the President on written request of the Delegates representing fifty or more component county societies. When such special session is called, the Secretary shall mail a notice of the time and place and the purpose of such meeting to the last known address of each member of the House of Delegates at least ten days before such special session.

Chapter IV. Section 8.

Amend so as to read:

Section 8. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the constitution and by-laws of that body.

Chapter V. Section 4.

Amend so as to read:

Section 4. Nomination for President-Elect shall be called for by counties.

Chapter 6. Section 1.

Amend line 5 of Section 1 by inserting between "deliver" and "annual" the word "an."

Chapter 6. Section 2.

Add a new section.

Section 2. The President-Elect shall be the Chairman of the Committee on scientific work, and shall appoint one active member of the Association to serve on this Committee. He shall become the President of the Association at the next annual meeting of the Scientific Session following his election as President-Elect. He shall assist the President in visitation of county and other meetings and shall be ex-officio a member of the House of Delegates with the right to vote. In the event of death, resignation, or if he becomes permanently disqualified, his successor shall be elected by the House of Delegates and shall be installed as President of the Association at the next annual meeting of the Scientific Session of the Association.

Make present Section 2, Section 3.

Make present Section 3, Section 4.

Amend the last paragraph of Section 3 by transferring this paragraph to be the first paragraph of Chapter VII, Section 1, so that the first paragraph of Chapter VII, Section 1 will read as follows:

Section 1. Council shall be the Executive Body of the House of Delegates and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and By-Laws.

Make present Section 4, Section 5.

Chapter VIII. Add new Section 6.

Section 6. The Committee on Medical Education shall consist of three members who have been appointed by the President and shall serve for one year. It shall prepare a report covering its activities during the year to be presented to the House of Delegates.

SECRETARY McCORMACK: I move you, sir, that the thanks of the Association be extended to the Fayette County Medical Society and particularly to those of its members who took such an active part in preparing for and exhibiting the beautiful hospitality of Lexington. I think we ought

to name especially Dr. C. A. Vance, who has been the General Chairman for about as long as Dr. Frank has been a member of the Association. I would like to move you also that our gratitude be extended to the newspapers, to the hotels, especially to Dr. Reichard at the Narcotic Farm, and that the President and Secretary be instructed to write to the Surgeon General expressing our appreciation of that delightful meeting at the Narcotic Farm, and to the ladies of Lexington representing the medical profession who have entertained our wives so lavishly and so beautifully. And then I reserve the privilege of adding anybody else that I have omitted.

PRESIDENT BELL: You have heard this

suggestion on the part of our Secretary. Let's have a rising vote to that effect.

The motion was seconded and carried unanimously by a rising vote.

SECRETARY McCORMACK: I would like to move you, sir, that the gratitude of the House of Delegates be extended to Dr. Scott, the retiring President, and to Dr. Bell, our President, for the urbanity, dignity, and dispatch with which the business of the House has been conducted.

The motion was seconded and carried.

CHAIRMAN VANCE: The Council reports the following accounts, which have been approved and ordered paid by the House of Delegates and I move that they be paid. Carried.

1940			
Sept. 2—	Voucher Check No. 1.....		\$2,200.00
	A. T. McCORMACK, M. D., Louisville		
	To reimbursement for rent on State Board of Health building	2,200.00	
Sept. 14—	Voucher Check No. 2.....		50.00
	EUGENE M. HEIMERDINGER, C. F. A. Louisville		
	To auditing records of the Secretary, and the Treasurer, of the Kentucky State Medical Association; records of the Treasurer, of the Woman's Auxiliary and the Business Manager of "The Quarterly"	50.00	
Sept. 14—	Voucher Check No. 3.....		100.50
	LOUISVILLE POSTMASTER, Louisville		
	To postage, July 18-31, 1940.....	2.89	
	To August postage	97.61	
		<u>100.50</u>	
Sept. 14—	Voucher Check No. 4.....		115.60
	MALCOLM OWEN, Louisville		
	To expense of trip, 7-29-8-2-40, to O'Keene, Oklahoma, for Ephraim McDowell portrait	115.00	
Sept. 14—	Voucher Check No. 5.....		37.58
	COURIER-JOURNAL JOB PRINTING CO., Louisville		
	To 2,500 inserts, of photograph of Dr. Austin Bell, President for Annual Number.....	37.58	
Sept. 14—	Voucher Check No. 6.....		197.13
	F. & V. MANUFACTURING CO., East Providence, R. I.		
	To 517 Buttons—Lexington 1940, at 25c.....	129.25	
	To 463 Bangles—Lexington 1940, at 14 1-2c	67.14	
		<u>196.39</u>	
	Postage and Insurance .....	.74	
		<u>197.13</u>	
Sept. 14—	Voucher Check No. 7.....		29.64
	BUSH-KREBS CO., Louisville		
	To 20 Proofs of Halftone (For Pediatric Conference).....	1.00	
	To 6 Halftones—Portraits of Doctors.....	20.80	
	To 1 Multigraph "Signature".....	1.50	
	To 1 Copper Halftone Portrait and Art Work (For State Meeting Program)	6.34	
		<u>29.64</u>	
Sept. 14—	Voucher Check No. 8.....		2.31
	STATE DEPARTMENT OF HEALTH, Louisville		
	To reimbursement for express.....	2.31	
Sept. 14—	Voucher Check No. 9.....		5.40
	STATE DEPARTMENT OF HEALTH, Louisville		
	To reimbursement for long distance calls.....	5.40	
Sept. 14—	Voucher Check No. 10.....		2.50
	THE STANDARD PRINTING CO., Louisville		
	To rebinding 1 Volume of Kentucky Medical Journals	2.50	
Sept. 14—	Voucher Check No. 11.....		747.50
	THE TIMES-JOURNAL PUBLISHING CO., Bowling Green		
	To 2500 September Issue—88 pages.....	652.00	
	To 6 pt. Tabular Work.....	75.00	
	To Inserts	5.00	
		<u>732.00</u>	
	Less Ck. No. 194 dated 8-31-40 -Account of September Issue	550.00	
	Less 4 pages charged on August Issue.....	26.00	
		<u>576.00</u>	
		156.00	
	To 2300 October Issue—72 pages.....	504.00	
	To 1 M Programs for Lexington Meeting—32 pages	87.50	
		<u>747.50</u>	
Sept. 30—	Voucher Check No. 12.....		158.90
	A. T. McCORMACK, M. D., Louisville		
	To September Salary, Secretary.....	135.00	
	To expense to Lexington Meeting.....	23.90	
		<u>158.90</u>	
Sept. 30—	Voucher Check No. 13.....		96.00
	L. H. SOUTH, M. D., Louisville		
	To September Salary, Business Manager.....	90.00	
	To reimbursement for postage for mailing out programs	6.00	
		<u>96.00</u>	

Sept. 30—Voucher Check No. 14.....	30.00	
J. F. BLACKERBY, Louisville		
To September services rendered Committee on Public Policy	30.00	
Sept. 30—Voucher Check No. 15.....	85.22	
ELVA GRANT, Louisville		
To September Salary, Bookkeeper.....	65.00	
To expense to Lexington Meeting.....	20.22	
	85.22	
Sept. 30—Voucher Check No. 16.....	50.00	
ELIZABETH CONKLING, Louisville		
To September salary, Stenographer for Medico-Legal Committee	50.00	
Sept. 30—Voucher Check No. 17.....	1.97	
STATE DEPARTMENT OF HEALTH, Louisville		
To reimbursement for express	1.97	
Sept. 30—Voucher Check No. 18.....	40.20	
STATE DEPARTMENT OF HEALTH, Louisville		
To reimbursement for long distance calls.....	40.20	
Sept. 30—Voucher Check No. 19.....	20.00	
OTHO HASKINS, Louisville		
To Honorarium	20.00	
Sept. 30—Voucher Check No. 20.....	37.50	
V. A. STILLEY, M. D., Benton		
To expense as Councilor, 1st District.....	37.50	
Sept. 30—Voucher Check No. 21.....	37.00	
D. M. GRIFFITH, M. D., Owensboro		
To expense as Councilor, 2nd District.....	37.00	
Sept. 30—Voucher Check No. 22.....	45.30	
W. B. ATKINSON, M. D., Campbellsville		
To expense as Councilor, 6th District.....	45.30	
Sept. 30—Voucher Check No. 23.....	83.46	
CHARLES A. VANCE, M. D., Lexington		
To expense as Councilor, 10th District.....	83.46	
Sept. 30—Voucher Check No. 24.....	34.08	
MAYME SULLIVAN, Louisville		
To expenses to Lexington Meeting for Self and Stereoptican Operator	33.15	
To reimbursement for Association telegrams.....	.93	
	34.08	
Sept. 30—Voucher Check No. 25.....	5.95	
RAY WUNDERLICH, Louisville		
To expense to Lexington Meeting.....	5.95	
Sept. 30—Voucher Check No. 26.....	4.25	
ELIZABETH THOMAS, Louisville		
To expense to Lexington Meeting.....	4.25	
Sept. 30—Voucher Check No. 27.....	5.35	
EMILY STOCKER, Louisville		
To expense to Lexington Meeting.....	5.35	
Sept. 30—Voucher Check No. 28.....	16.20	
E. H. ROEDERER, Louisville		
To 20 Past President Badges at 12c.....	2.40	
To 15 Councilor Badges at 12c.....	1.80	
To 150 Delegate Badges at 5c.....	12.00	
	16.20	
Sept. 30—Voucher Check No. 29.....	15.40	
WOMAN'S AUXILIARY QUARTERLY, Louisville		
To 20 per cent Commission on 22 Sales of Book, "Medicine and Its Development in Kentucky" amounting to \$77.00 (Book Fund)	15.40	
Sept. 30—Voucher Check No. 30.....	75.89	
PHOENIX HOTEL, Lexington		
To room service for Dr. A. T. McCormack, Mayme Sullivan, Emily Stoecker, Elizabeth S. G. Thomas, Elva Grant and Ray Wunderlick, 9-15-19-1940, and official telephone calls and telegrams	105.89	
Less credit for advertisement in July, August and September Journals.....	30.00	
	75.09	
Sept. 30—Voucher Check No. 31.....	344.50	
JOS. T. GRIFFIN CO., Louisville		
To erecting and dismantling 36 booths for scientific exhibits at State Meeting.....	300.00	
To 36 Signs	42.50	
To 1 Sign 16a Movie Room.....	2.00	
	344.50	

PRESIDENT BELL: This meeting is now ad-
journed.

The meeting adjourned sine die at 9:45
a. m.

A. T. McCORMACK, Secretary.



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NEXT MEETING LOUISVILLE

COUNTY SOCIETY REPORTS

Shelby: The Shelby County Medical Society was host to the Fifth Councilor District, Shelbyville, October 17th at the Presbyterian Church. One of the best dinners ever given at a meeting, which was largely attended by the doctors and their wives, was served by the Auxiliary of the church. Philip F. Barbour and James H. Pritchett, Louisville, conducted a pediatric clinic, and J. B. Lukins, Louisville, conducted the meeting. The following program was carried out. From 4:00 to 6:00 P. M. the clinic was conducted. Dinner served at 6:00 P. M. and from 7:00 to 9:00 P. M. William Snyder, Frankfort, spoke on The Importance of Early Treatment for Squint; M. H. Pulskamp, Louisville, on The Importance of Anorectal Examination, and Emmet F. Horine, Louisville, Indications and Contra-Indications for the Use of Digitalis.

A. D. DOAK, Secretary.

Jefferson: The Jefferson County Medical Society held its bi-monthly meetings at the City Hospital, Louisville, on October 7th and 21st. The subjects were of unusual interest and there was a large attendance at both meetings. The following program was carried out. Case Report: An Unusual Abdominal Tumor, William M. McClarin; Sterility, by Alice N. Pickett; Dangers of Cholelithiasis, Irvin Abell; Case Report: Intussusception of Meckel's Diverticulum, Misch Casper; Roentgen Kymography as an Aid in the Diagnosis of Constrictive Pericarditis, Sydney E. Johnson, and Congenital Pyloric Stenosis, by Uly H. Smith.

The following have applied for membership: William C. Buschmeyer, John D. Campbell, John G. Clem, Raymond C. Comstock, Kerwin A. Fischer, Carlos A. Fish, Frederick Grunwald, James G. Hutchinson, Paul Mapother, John M. Kenney, Jr., E. K. McLain, Hans Norbert Naumann, R. E. Nelson, Marjorie Rowntree, Wm. A. Stoll, Herbert Wald, Frederick M. Williams and William C. Wolfe.

The Medical Library is open all during the week, and members are urged to use this library. The physicians in Kentucky are invited to attend any of these meetings, and to visit the library.

W. B. TROUTMAN, Secretary.

Muhlenberg: On September 5, 1940 at 5:30 a. m. Dr. LeRoy Willis, after an illness of over a year, passed away at his home in Central City.

Dr. Willis received his degree in medicine at Louisville, thirty-five years ago and immediately began to practice at Cleaton, Muhlenberg county. He was only 22 years of age when he located at Cleaton, and began his practice but made good from the very start. At subsequent intervals he also was located and practiced at

Nelson, Jeffersontown, and Central City, where he was located at the time of his death.

He was well known by the medical profession in Muhlenberg County, as well as all of Western Kentucky.

He was very kind, sympathetic and generous to a fault.

He leaves a wife, 1 stepson, 4 brothers and 1 sister to mourn his passing.

Bracken-Pendleton: Whereas in June, 1940, Dr. J. C. Norris, of Augusta, passed to his reward after a long and useful career in the profession of his choice.

Whereas Dr. Norris was long an active member of our Society and of the State Society also, and ever stood for high ideals in the Society, the welfare of his community and the profession of medicine for which he was an honor, therefore, be it Resolved;

That the Bracken-Pendleton Medical Society has lost one of our most useful members who had been spared to ripe old age but kept true to his profession and to the medical society in which he was always interested.

That the Bracken-Pendleton Medical Society extends its deepest sympathy to the bereaved family.

And, be it further resolved, that a copy of these resolutions be spread upon our minutes, a copy sent to the bereaved family, the local paper and the Journal.

W. A. McKenney,
J. M. Stevenson,
O. W. Brown.

NEWS ITEMS

Dr. J. I. Whittenberg, 68, former Jefferson County Coroner and Health Officer, died in Louisville. Although he had been in ill health for six months, his death of a heart attack was unexpected.

A native of Honeygrove, Texas, he came to Louisville when a young man.

Raymond C. Comstock, M. D., announces the opening of offices at 914 Heyburn Building, Louisville. Practice limited to Internal Medicine.

Carlos A. Fish, M. D., announces the opening of offices at 914 Heyburn Building, Louisville, Kentucky. Practice limited to Internal Medicine.

John D. Campbell, M. D., announces the opening of offices for practice limited to Neurology and Psychiatry. 310 Brown Building, Louisville, Kentucky.

Paul Mapother, M. D., Louisville, announces the opening of his office for practice limited to Dermatology and Syphilology. Rooms 400-401, Brown Building, Louisville.

BOOK REVIEWS

CLINICAL LABORATORY METHODS AND DIAGNOSIS. A TEXT BOOK ON LABORATORY PROCEDURE WITH THEIR INTERPRETATION.—By R. B. H. Gradwohl, M. D., Formerly Director of Laboratories, St. Louis County Hospital, Pathologist to Christian Hospital, Director, Research Laboratory, St. Louis Metropolitan Police Department, St. Louis, Commander Medical Corps Fleet, United States Naval Reserve. With 492 illustrations in the text and 14 colored plates. Second Edition. The C. V. Mosby Company, St. Louis, Missouri, Publishers. Price \$12.50.

In this new edition all that is now considered obsolete or impractical has been deleted. Of particular moment in the improvement of this volume are the following: A description of the newer concepts on nephritis and nephrosis according to Fisher and Berling and others, amplification and simplification of the chapter on Blood Chemistry with the adoption of standard modern methods and the elimination of methods no longer generally practiced. More than 100 new pages have been added to the chapter on Hematology as well as 24 full page color plates.

This is an excellent reference book as it covers all phases of bacteriology and clinical pathology.

MANUAL OF PUBLIC HEALTH LABORATORY PRACTICE.—By J. R. Currie, Henry Mehan, Professor of Public Health, University of Glasgow and Contributors. With 169 figures in the text. William Wood & Co., Mount Royal and Guilford Avenue, Baltimore, Maryland.

This is a valuable manual for a health officer's library and the subjects discussed are six in number, namely, chemistry, bacteriology, protozoology, helminthology, entomology and meteorology. In chemistry the author discusses the simple tests for water, air, foods, beverages and disinfectants.

The section on bacteriology is devoted to the diagnosis of infections. The remaining subjects are related in a simple adequate manner presenting the material in such a manner as to be readily available to the student.

HOW TO CONQUER CONSTIPATION, THE ANSWER TO EVERYBODY'S PROBLEM.—By J. F. Montague, Editor in Chief, Health Digest, Medical Director New York Intestinal Sanitarium American Association For Advancement of Science, American Society For the Control of Cancer, Fellow New York Pathological Society. J. B. Lippincott Company, New York, Publishers. Price \$1.50.

The author has been one of the leading specialists in intestinal ailments in New York and his experience comprises work at Bellevue Hospital as well as the New York Intestinal Sanatorium.

PHYSICAL DIAGNOSIS, THE ART AND TECHNIQUE OF HISTORY TAKING AND PHYSICAL EXAMINATION OF THE PATIENT IN HEALTH AND IN DISEASE.—By Don C. Sutton, M. S., M. D., Associate Professor of Medicine, Northwestern University, School of Medicine, Attending Physician and Chairman of the Medical Division of the Cook County Hospital, Chief of the Cardiac Clinic, Cook County Hospital, Chicago, Attending Physician, The Evanston Hospital. With 298 text illustrations and 8 color plates. The C. V. Mosby Company, Publishers, St. Louis.

This volume has been written to acquaint the student and the physician with the methods of examination by the use of the senses as well as all the new armamentarium that has been added to the modern well equipped office. The book is of great value because it stresses the fact that nothing can take the place of a thorough physical examination and a careful history as all other instruments are adjuncts in the searching for an accurate physical diagnosis.

ANUS, RECTUM, SIGMOID, COLON. — By Dr. Harry Elliott Bacon, Assistant Professor of Proctology, Temple University, School of Medicine. J. B. Lippincott Company, East Washington Square, Philadelphia, Publishers. Price \$8.50.

The subject of proctology is one of the most important branches of surgery and medicine from the view point of the patient. When medical skill relieves these conditions there is always a grateful patient. A new book by a skilled author is always welcome, and this volume is carefully written, gives a practical and comprehensive knowledge of the diseases of the lower bowels and it covers every phase of the complex subject. There is a carefully selected bibliography at the end of each chapter, making additional knowledge readily accessible.

SYNOPSIS OF CLINICAL LABORATORY METHODS.—By W. E. Bray, B. A., M. D., Professor of Clinical Pathology, University of Virginia, Director of Clinical Laboratories, University of Virginia Hospital. Fifty-one text illustrations. Seventeen color plates. Second Edition, St. Louis. The C. V. Mosby Company, Publishers. Price \$4.50.

So many advances are constantly being made in clinical laboratory methods, a new edition is always a welcome volume to a physician's library. This book fulfills every desire in being new, brief, well written and illustrated.

The descriptions are brief because unimportant details have been omitted. Among the many new procedures that have been added, a few are as follows: serum phosphatase determination, titration of staphylococcus antitoxin in blood serum, Ivy bleeding time, vitamin C titration, determination of sulfanilamide in the blood, etc.

CANCER—ITS DIAGNOSIS AND TREATMENT.—By Max Cutler, M. D., Associate in Surgery, Northwestern University Medical School; Chairman, Scientific Committee, Chicago Tumor Institute; Consultant, Tumor Clinic and Director, Cancer Research, United States Veterans Administration, Hines, Illinois; and Franz Buschke, M. D., Assistant Roentgenologist, Chicago Tumor Institute; Late Assistant, Roentgen Institute, University of Zurich, Assisted by Simeon T. Cantril, M. D., Director Tumor Institute Swedish Hospital, Seattle; Late Assistant, Chicago Tumor Institute. 757 pages with 346 illustrations. Philadelphia and London: W. B. Saunders Company. Cloth, \$10.00 net.

The special purpose of this work is to make accessible critical evaluation of the pertinent facts in diagnosis, prognosis and treatment of cancer as gleaned from the world's literature and reviewed in light of the author's experience. Early diagnosis is stressed as one of the most important parts of the cancer prevention program. Full details of treatment have been given including radiation therapy.

INJECTION TREATMENT OF HERNIA, Hydrocele, Ganglion, Hemorrhoids, Prostate Gland, Angioma, Varicocele, Varicose Veins, Bursae and Joints.—By Penn Riddle, B. S., M. D., F. A. C. S., Assistant Professor of Clinical and Operative Surgery, Baylor University, College of Medicine; Director of the Varicose Vein Clinic, Parkland Hospital, Dallas, Texas. 290 pages with 153 illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Cloth, \$5.50.

This book contains in detail the complete technic of injection procedures and specifies exactly those conditions under which the type of treatment may be safely and successfully used. Included in detail are the injection treatment of hernia, varicose veins, hemorrhoids, hydrocele, varicocele, ganglion, bursae, joints, angioma and prostate gland. There are 153 pictures and diagrams to illustrate the text.

COMPENDIUM OF REGIONAL DIAGNOSIS IN LESIONS OF THE BRAIN AND SPINAL CORD, A CONCISE INTRODUCTION TO THE PRINCIPLES OF LOCALIZATION OF DISEASES AND INJURIES OF THE NERVOUS SYSTEM.—By Robert Bing, Professor of Neurology, University of Basel, Switzerland. Translated and Edited by Webb Haymaker, Assistant Clinical Professor of Neurology and Lecturer in Neuro-Anatomy, University of California. Eleventh Addition, with 125 illustrations, 27 in color, and 7 plates. C. V. Mosby Company, Publishers, St. Louis. Price \$5.00.

The fact that there have been eleven editions shows the value and appreciation of this volume. Many new facts have been added and many chapters have been revised and rewritten. The new data that has been added increases its practical value.

CLINICAL, ROENTGENOLOGY OF THE ALIMENTARY TRACT.—By Jacob Buckstein, M. D., Visiting Roentgenologist (Alimentary Tract Division), Bellevue Hospital, New York City; Consultant in Gastro-Enterology, Central Islip Hospital. 652 pages with 525 original illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Cloth, \$10.00.

The general practitioner and surgeon are given complete and adequate instructions on how to interpret X-rays of the alimentary tract and how to apply the findings in reaching or confirming a diagnosis. The contrast between normal findings with the pathologic are given.

There are 525 original films and illustrations which greatly enhance the value of this book.

DISEASES OF THE GALLBLADDER AND BILE DUCTS.—By Waltman Walters, B. S., M. D., M. S., in Surgery, Sc. D. F. A. C. S., Head of Section in Division of Surgery, The Mayo Clinic; Professor of Surgery, The Mayo Foundation (University of Minnesota); and Albert M. Snell, B. S., M. D., M. S., in Medicine F. A. C. P., Head of Section in Division of Medicine, The Mayo Clinic; Professor of Medicine, The Mayo Foundation (University of Minnesota). 645 pages with 342 illustrations on 195 figures. Philadelphia and London: W. B. Saunders Company, 1940. Cloth, \$10.00.

The best of authorities on diseases of gallbladder from the Mayo Clinic have contributed to make this volume a very valuable addition to any surgical library. Diagnostic methods are discussed in exceptionally full details. The technic and application of cholecystography are described with an entire chapter devoted to these subjects.

Vitamin K in the prevention and control of hemorrhagic diathesis in jaundice is fully discussed.

In describing the operative technic, all types of instruments used in each kind of operation are shown in actual photographs and grouped according to usage.

Particular attention has been given to operative and non-operative treatment which covers a special section.

TUMORS OF THE HANDS AND FEET.—Edited by George T. Pack, B. S., M. D., F. A. C. S., Assistant Clinical Professor of Surgery, Yale University School of Medicine and Cornell University College of Medicine; Attending Surgeon, Memorial Hospital for Cancer and Allied Diseases, 138 pages. The C. V. Mosby Company, St. Louis, Publishers. Price \$3.00.

Since the scope of neoplastic diseases has be-

come so extensive that it is impossible to discuss the entire subject in a single volume there has been an increasing tendency to publish monographs dealing with regional cancers. This volume comprises the subject matter of a symposium published in the January, 1939, issue of "Surgery." While it is true that tumors of the hands and feet are rare they, nevertheless, deserve serious consideration because of the functional and economic importance of the parts affected. Such lesions are so accessible for diagnosis that general practitioner and specialist alike welcome this book which is thorough not only in the description of the appearance and the clinical features of the lesions but also in their differential diagnosis. Subjects discussed include chapters on carcinoma, subungual melanoma, angiomatous tumors, tumors of the synovia, tendons, and joint capsules, and tumors primary in the bones of the hands and feet. Even inflammatory lesions are indirectly presented since they must necessarily be considered in any attempt to establish a proper diagnosis. The book is well illustrated, there are complete bibliographies at the end of the various chapters and a description is given of the equipment needed for radiation therapy of tumors of the hands and feet. The contributing authors are specialists, distinguished in their respective fields.

The book is both comprehensive and concise and is recommended as an adequate guide towards the correct diagnosis and the proper treatment of tumors of the hands and feet.

CLINICAL HEART DISEASE.—By Samuel A. Levine, M. D., F. A. C. P., Assistant Professor of Medicine, Harvard Medical School; Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston; Consultant Cardiologist, Newton Hospital; Physician, New England Baptist Hospital, Boston, Second Edition, Revised and Reset. 495 pages with 109 illustrations. Philadelphia and London: W. B. Saunders Company, 1940. Cloth, \$6.00.

This new second edition is a larger, more improved volume and includes the very latest data in applied cardiology. There is a new chapter on Medico-Legal aspect of heart disease, and special attention has been given to clinical diagnosis and treatment. Rheumatic heart receives merited attention.

Physical laboratory, x-ray, fluoroscopic and electrocardiographic methods of examination are detailed. The exact treatments (with dosage) are those that the author himself is using. General care, dietary regulation, relief of pain, surgical procedure, etc., are all covered from the viewpoint of what to do, when to do it and how to do it. There are 533 electrocardiograms on 108 figures.

KENTUCKY MEDICAL JOURNAL

BEING THE JOURNAL OF THE KENTUCKY STATE MEDICAL ASSOCIATION

Published Under the Auspices of the Council

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BOWLING GREEN, KY.

DECEMBER, 1940

PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

8. Expansion of public health and medical services consistent with the American System of democracy.

EDITORIALS

THE SOUTHERN MEDICAL MEETING

The recently adjourned sessions of the Southern Medical Association in Louisville have left a wake of pleasant memories. As was well said by Herbert Agar in the November 16 issue of the *Courier Journal*, "Doctors' Conventions are Different." His thought is developed as follows:

"The Southern doctor is a gentleman and a scholar. This fact was impressed on Louisvillians by the convention of the Southern Medical Association which ended yesterday. With few exceptions conventions are pretty much standardized these days. The program consists of plans for cooperation, speeches citing the need for legislation favoring the convening group, a resolution which says, in effect, tax the other fellow. There is a banquet, a reunion, a dance, much drinking. The group's secretary and one or two other dependable members do most of the work. The doctors were different. Their convention was more like a condensed post-graduate course in medicine. There was a sharing of professional knowledge from which not only doctors but laymen will benefit."

Tom Underwood in the *Lexington Herald* for the same day under the title of "No Medical Meddling" reaches the same conclusion from an entirely different angle. Such words of confidence and recognition by two contemporary statesmen should be thought provoking, not only to each doctor but to every medical organization in our country. The Southern Medical Association has the simplest type of organization in the whole category of similar professional societies. It meets, it studies under capable medical leaders in different sections, it exhibits the improved facilities and newer knowledge being developed by skill and research. Its members and their families enjoy associating with one another and improving their mutual friendliness. They have made the impression that they are seriously and sincerely trying their level best to solve a tremendously complicated medical and social program. The fact that they pass no resolutions does not mean that none are made, for a moment. Every man and woman of them returns home determined to follow a little more zealously the precepts of the Great Physician to serve humanity better, to give more of

themselves, not only to those who need them now but to the development of a far better profession to succeed them and serve the generations to come.

To these ends, the Southern Medical Association and its members, its officers and Auxiliary dedicate themselves.

THE INDEX

It is the desire of the Committee on Publication to always keep the *JOURNAL* up to date and make it as valuable to the profession as possible. With this in view, each year a complete index of its contents are made and published in the December *JOURNAL*, and this will enable the physicians to have the twelve issues bound and by means of the index they will be able to locate any subject or any writer that has contributed to the *JOURNAL*.

The final page of the Index Number closes the last issue of the 12 journals for 1940. In these 12 issues were published 110 original articles, 73 editorials and 318 pages of advertisements. The year just closing has been an unusually happy and prosperous one for the Kentucky State Medical Association. All publications of the *JOURNAL* were practically paid for by the advertisers, the first time since the beginning of the depression in 1929. More doctors in Kentucky received the *JOURNAL* in 1940 than in any previous year in the history of the Association, paid up members at the last meeting in Lexington totalling over nineteen-hundred.

The *JOURNAL* continued during the year its policy of publishing, without abridgment, every article read before the state association and county and district societies. The November issue carried verbatim every word spoken before the House of Delegates at the Lexington meeting, thus enabling physicians to read in detail the activities of their delegates. It also carried complete reports of all the Association's Committees.

In the September issue, which is the *ANNUAL NUMBER*, may be found a complete financial statement, including detailed voucher checks of all the expenditures of the Association during the year. This enables member physicians to see at a glance, without complicated financial statements, just exactly how the income of the Association was expended.

The war in Europe and the changing, economic conditions at home, find the medical profession standing as a pillar of strength in service to the people. It is

to our noble profession that the people of the country look for guidance towards a happier and more useful citizenship. It is worth noting that more physicians in Kentucky registered with the American Medical Association for Placement Service, than in any other state of the Union.

THE AMERICAN PUBLIC HEALTH ASSOCIATION

At the meeting of the American Public Health Association in Detroit in October, there were delegates from every state in the Union, the District of Columbia, Alaska, Hawaii, Puerto Rico, Canada, Cuba, Mexico, Denmark, China and New Zealand.

Among its resolutions passed was one emphasizing the necessity for maintaining civilian health as essential in national defense and pledging the united support of members to the national defense and to the maintenance of health in a free people.

The 1941 meeting will be held in Atlantic City. Kentucky should feel extremely proud that Dr. John L. Rice, Health Officer of New York City, was elected President. Dr. Rice was for many years the County Health Officer in Mason County, so we can claim him as our own.

A. T. McCormack, Hugh Leavell and L. H. South were on the program in their various sections.

Fayette County Health Department was given a bronze plaque as the first award for progress in county health work. This contest is conducted annually by the American Public Health Association and the United States Chamber of Commerce and Dr. Charles D. Cawood and Fayette County Board of Health are to be congratulated upon their excellent work which enabled them to receive this honor.

AN UNUSUAL HONOR

Contributors to the Kentucky Medical Journal are requested by the Medical Corps, U. S. Army, to furnish them reprints of their articles for the Army Medical Library, located in the War Department at Washington. These articles will be placed in a special collection, catalogued by authors and thus form a ready bibliography of the work of any writer. They will at the same time constitute a valuable supplementary source of material for reference when the volume or volumes of original publications are temporarily unavailable by reason of loan or other causes.

REPORT OF CASE OF FIBROSARCOMA OF ILEUM

HERMAN MAHAFFEY, M. D.

Louisville

Tumors of the small intestine are relatively rare. Malignant tumors are yet more rare. Small bowel malignancies constitute from 3 per cent to 6 per cent of all gastrointestinal malignancies.

Primary malignancy does not respect any portion of gastro-intestinal tract. The portions of small bowel most frequently attacked are the two extremities, approximately 40 per cent occurring in proximal jejunum and 28 per cent in distal ileum¹.

Sarcomas present many different forms: i. e., small, non-obstructive; or large, causing obstruction, and densely adherent, penetrating into adjacent structure; and those causing intussusception. Metastasis, if present, are most often found in regional lymph nodes and liver. Sarcomas are of connective tissue, smooth muscle tissue, or lymphoid structures. Those of lymphoid structures account for four out of five cases¹. Cameron in review of literature in 1937, reported two hundred tumors of small intestine and found only ten fibrosarcomas¹. Smith and Calloway state fibromas are most rare in small intestine². In 1933 Moore and Schmeiser found in literature forty-two cases of fibrosarcoma of small bowel and reported one of their own³. Only six cases of perforation, and these in lymphosarcoma, have been reported in literature up to April, 1939, according to Lewis in April, 1939 issue of British Journal of Surgery⁴. Drs. L. Wallace Frank and A. J. Miller reviewed the Histogenesis thoroughly and reported two cases of Neurofibrosarcoma of small bowel in February, 1939 issue of Annals of Surgery⁵. Structure of fibrosarcoma and neurofibrosarcoma is identical, terminology being the chief difference.

Symptoms vary according to location and condition; whether intussusception, obstruction, or hemorrhage are present. Anorexia, dyspepsia, weakness, fatigue, and vague abdominal discomfort; perhaps diarrhea alternating with constipation. Onset may be sudden. Hemorrhage may be first symptom if tumor protrudes into lumen of bowel. These tumors are often diagnosed as duodenal ulcer. Tumor mass, movable or not, may or may not be palpated. If tumor be low in bowel, it may fall

in cul de sac and be diagnosed as pelvic tumor.

Blood examination will reveal decreased hemoglobin and erythrocyte count; occult blood in stool if tumor penetrates lumen of bowel.

X-ray examination is of value only when special study is made or when obstruction or intussusception is present. Small tumors are diagnosed preoperatively in about fifty per cent of cases.

Treatment consists of radical extirpation with resection of bowel and mesentery. This should be followed with deep x-ray therapy.

Prognosis must be guarded. There is an immediate operative mortality of thirty per cent. Cameron reported three cases of fibrosarcoma which lived eight years, two which lived thirteen years, and one which lived twenty years.

Mrs. J. C. was admitted to Kentucky Baptist Hospital September 3, 1939. Hospital No. 50351. She was a white female housewife of 52 years of age.

Chief complaint was hemorrhage from the bowels, nausea, vomiting, vague abdominal pain, and extreme weakness.

Present Illness: Onset began suddenly seventy-two hours ago. Four stools with large, dark blood clots were first indication of illness. These were followed with nausea, vomiting, griping lower abdominal pain, weakness, pallor, and vertigo. There were three to four bloody stools daily during past seventy-two hours.

Past history reveals only an indefinite malaise, occasional pains, and fullness in stomach after meals for the past four to five years.

Past illness is not contributory with the exception that twelve years ago the patient passed some red blood from the rectum, which cleared up rather quickly with irrigations.

Family History is not contributory.

Physical Examination: Patient is a white, obese female. She has a blood pressure of 74 systolic (diastolic not obtained), and a pulse of 120. There is an extreme pallor, apparent weakness, and the patient appears acutely ill. There is a somewhat anxious appearance of the eyes and the conjunctiva are very pale. The lips and gums of the mouth are pale and dry. The breath has a foul and acidotic odor.

The abdomen is flat and of the short, obese type. There is a definite tenderness to pressure in umbilical area. However, we are unable to palpate any mass. In fact, deep palpation is not done for fear of caus-

ing further hemorrhage. We are unable to find any pathological lesion on rectal examination. All other features of examination fail to reveal any condition of importance.

Laboratory Findings: Urinalysis does not show any abnormal findings. The blood examination revealed a marked secondary anemia. The hemoglobin is 40 %; red blood cells 2,200,000; color index .9; white blood cells 21,400 with a total polymorphonuclear count of 92.

The next two slides will show how the hemoglobin and red blood cell count varied from day to day. Also amount and number of blood transfusions patient had. The lowest hemoglobin was 29 per cent and the highest prior to operation 55.5%. Red blood cell count varied from 1,510,000 to 3,900,000. During the first week of hospital stay patient had many large evacuations of bowels, all containing much dark and clotted blood.

Date	Hg. %	R. B. C.	Transfusion of Citrated Blood.
9/3	40	2,200,000	500 cc.
9/4	47	2,770,000	
9/5			500 cc.
9/6	29	1,550,000	250 cc. 1 p.m. 250 cc. 8 p.m.
9/7			250 cc.
9/8	29.7	1,510,000	250 cc. 9 a.m. 250 cc. 4 p.m.
9/10	34	2,909,000	250 cc.
9/11	30.2	1,560,000	250 cc.
9/12			250 cc.
9/13	40	1,620,000	250 cc.
9/14			250 cc.
9/15	51.7	2,840,000	
9/16			250 cc.
9/17	48.7	3,900,000	250 cc.
9/18	55.5	2,420,000	
			500 cc. during operation
			500 cc. 5% Glucose
9/20			500 cc.
9/23	68.1	3,200,000	

Progress notes prior to operation: The evening of admission patient was given one blood transfusion of 500 cc. citrated blood and 4 cc. of koagamin intravenously. Blood pressure immediately following admission was, systolic 74 and diastolic not obtained. The following morning the patient appeared somewhat improved. Blood transfusions, subcutaneous normal saline, 3 to 4 cc. of koagamin every four hours, and bismuth by mouth every two hours were given. On the fourth day of hospital stay, Dr. Louis Frank saw patient in con-

sultation with us. He suggested continuing along present lines of treatment i. e., transfusions, ice to abdomen, administration of koagamin, and other supportive measures.

During the consultation with Dr. Frank the question of a tumor of the small intestine was discussed. This was thought to be a probability due to the fact that the patient had not vomited blood, which you could expect in bleeding duodenal ulcer. Also due to the fact that all blood which passed from the rectum was a very dark color and had a very foul odor. We dismissed the idea that the patient had a lesion, either malignant or benign, of the colon because at no time was there any bright red blood passed. No diarrhea prior to onset. For the time being the question of diagnosis is undecided.

We continued along the same general line of treatment for the next ten to twelve days. Hemoglobin and red blood cells were watched, and transfusions were given in a hope that the patient could be built up until she could undergo an exploratory operation. Our aim was to have 50% hemoglobin or better for operation if possible.

X-ray examination of gastro-intestinal tract was entirely negative with the exception of an apparent lesion in the first portion of the duodenum, which appeared constantly. X-ray diagnosis was duodenal ulcer near the pylorus, but not obstructing.

This patient went to the operating room with provisional diagnosis as follows: Ulcerative colitis, carcinoma of the colon, regional ileitis, bleeding duodenal ulcer or tumor of small intestine.

On September 19, under spinal anesthesia of novocaine and nupercaine and supplemented by cyclopropane anesthesia given by Dr. R. Douglas Sanders, an exploratory incision was made beginning immediately below the xiphoid process and extending downward to the right of and level of the umbilicus. What we thought was thorough exploration of abdomen failed to reveal any pathological condition. Pancreas, gall bladder, liver, and spleen appeared to be normal. No signs of apparent metastasis were found.

A small opening was even made in the lower end of the stomach and the finger introduced into first portion of duodenum. This examination gave us no further information, there being no signs whatever of a gastric or duodenal ulcer or tumor. This was closed in layers, and a more careful study of intestinal tract was made.

The entire large bowel was apparently normal. In approximately the area of the juncture of middle and lower third of the ileum a small hard mass in the intestinal wall was located. This together with intestine was delivered. The tumor was approximately two inches in length and one and one-half inches in diameter. It extended into the lumen of the intestine. Approximately eight inches of the intestine and mesentery including the tumor was resected, and a lateral anastomosis was made.

The appendix is removed routinely, abdomen closed in the usual manner without drainage.

During the operation 500 cc. of citrated blood was given intravenously, followed by the intravenous administration of 500 cc. of five per cent glucose in normal saline until the operation is completed. According to the report of the anesthetist the blood pressure raised from 124 to 138 during the operation and was maintained at that time. One-fourth of one cc. of neosynephrin hydrochloride was given at the beginning of the spinal anesthesia and a second injection was given later during the operation. The pulse varied from 80 to 90. The immediate postoperative condition was good.

Pathological Report was made by Drs. William Allen and Marion Beard as follows: Specimen consists of appendix; portion of small bowel with tumor.

Gross: Specimen consists of an appendix and section ileum with a tumor mass included. The appendix measures 6 cm. in length; its mucosa is smooth, grey and glistening. The tip is solid and sclerotic. The lumen is patent and filled with fecal material. In the wall of the ileum there is a soft tumor measuring 4 x 5 cm. in diameter. It extends 1 cm. into the lumen of the gut and the thin surface presents a sharply defined crater 2 cm. in diameter. On section it is grey white in color, soft and glistening.

Microscopy: Sections of the small bowel and underlying tumor mass show the mucosa atrophic. The tumor mass is composed of dense masses of cells with much stroma. Most of the cells are fairly well differentiated; there is some mitosis. In some areas fibroblasts are fairly well formed with a moderate amount of intracellular substance. There are no giant cells seen. A differentiation between a benign fibroma and a fibrosarcoma is difficult to make on the tissue. It is well encapsulated, there is no invasion of the mucosa, but in some

areas the structure is too hyperplastic as to be beyond the picture of a simple fibroma.

Sections of the appendix show some fibrosis of the mucosa and submucosa. There are a few areas of infiltration of lymphocytes.

Diagnosis: Fibrosarcoma of ileum, fibrosed appendix.

Following operation proctoclysis of normal saline was given as much as patient could take up. The next day 500 cc. citrated blood was given.

September 19, Pulse 120, regular and strong; volume good; resting comfortable.

September 20: General appearance good; color good. Pulse 110. Allowed to have hot tea. Mineral oil one ounce daily.

September 21: Blood pressure 130/63; pulse 114. 1000 cc. of 10% glucose in normal saline given intravenously.

September 22: Diet: Jello, egg albumen and tea. Stimulating enema. Pulse 100, regular and strong.

September 24; Abdomen soft and not tender, complains of nausea and weakness. No vomiting. Given 1000 cc. of 10% glucose in normal saline as food and stimulant. Good results from enema. Give malted milk with half ounce of whiskey every three to four hours.

From this point on patient had an uneventful recovery. Postoperatively temperature varied from 99.2 to 102 on second day, returning to normal on fourth day. From this time on it varied from 98 to 99.4. The pulse varied from 70 to 120. She was discharged from the hospital on fifteenth postoperative day.

Following discharge from hospital patient was watched at intervals for a period of three months. On October 24, 1939, the hemoglobin was 75%; the red blood cells were 4,060,000. On November 13, 1939, hemoglobin was 85% and red blood cells were 4,570,000. This was considered a normal finding. During this period of time the patient was given Jeculin by mouth as the only tonic which she had.

This patient has not had deep x-ray therapy. After consultation with three different Roentgenologists, it was decided for the time being not to use deep x-ray therapy. The reason for this was that this particular type of tumor is very resistant to the x-rays.

Prognosis: Prognosis in this case must be guarded, although we feel that this patient has a fair chance of living for some time without further trouble. Our reason for this is that there were no signs whatever of metastasis either in the regional

lymph nodes, liver, or other abdominal organs. If signs of metastasis present themselves in the future, x-ray therapy certainly will be instituted.

I am indebted to Dr. R. Douglas Sanders and to Dr. Marion Beard for the preparation of the diagrams and pathological slides which they have prepared for me.

SUMMARY

1. Case of fibrosarcoma of the ileum complicated by severe hemorrhage is presented.

2. Study of the literature indicates that this condition is rather rare.

3. To us this case was extremely interesting because it was our first case and also that the patient made a recovery.

4. A study of the literature also indicates that the immediate mortality of this condition is approximately 30 %.

5. Hemorrhage from the bowel should always be considered of importance, and it is essential that some idea must be had of the location of the lesion which causes the hemorrhage before operation if any way possible.

6. It is important that these patients must be brought to the best possible physical condition before operation.

7. The onset of these conditions may first be manifested by either, a. intussusception; b. obstruction; or c. hemorrhage.

8. Without the symptoms of intussusception, obstruction, or a tumor mass which is palpable, a diagnosis is often extremely difficult. Probably less than 50% of the small tumors are diagnosed preoperatively.

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DISCUSSION

Malcom Thompson, Louisville: The most serious and most significant complaint which Doctor Mahaffey's patient presented upon admission was hemorrhage from the bowel. To the internist, the roentgenologist, the pathologist, and the surgeon, bleeding from the bowel is a symptom of utmost importance. After careful study of these cases, it is sometimes difficult to locate accurately the bleeding point. It is imperative to do so, however, as intestinal bleeding is always of serious import and the attending physi-

cians should not stop until the cause of the bleeding is determined and appropriate treatment instituted.

Bleeding from the anus and lower rectum is usually obvious since the blood is still bright red and upon the outside of the stool. All such cases should have a digital, anoscopic and proctoscopic examination and, if the cause is not found, then a barium enema x-ray. Too frequently is this complaint dismissed with the diagnosis of hemorrhoids without an adequate examination when the condition is a polyp or cancer or other lesion of great danger to the patient.

When the bleeding is higher in the intestinal tract, the blood is mixed with the stool and dark in color from the action of the intestinal juices. The most frequent source is an ulcer upon the posterior duodenal wall or a gastric cancer. Other frequent sources are peptic ulcers in other locations and cancer and polyps of the large intestine. There are many less frequent sources, among them tumor of the small intestine.

As previously stated, the attending physician must study relentlessly these cases of bleeding until the cause is discovered and corrected because all of them are serious. One obstacle to early and accurate diagnosis is that the crater of a bleeding ulcer may become filled with blood clot and therefore not subject to x-ray visualization. The failure to demonstrate a bleeding ulcer should never cause reflection upon the ability of the roentgenologist. When, after adequate study, which should include gastro-intestinal and barium enema x-ray examination and sigmoidoscopy, the point or points of bleeding have not been found and the bleeding continues in spite of appropriate medical treatment, then exploratory laparotomy is indicated since the lesion, as the one reported here, may be subject to surgical removal and cure.

And it is in this connection that I wish to emphasize and commend several features of this report. First, a thorough study was made to discover the cause of bleeding. Second, an exploratory laparotomy was advised and performed as part of the continued study to find the cause of bleeding. Third, comprehensive pre-operative preparation was done so the patient could be in the best condition possible for the operation. Except in acute emergencies the policy of operating upon seriously ill patients without adequate preparation is now fortunately past.

Fourth, at the operation Doctor Mahaffey was not satisfied with one examination of the abdominal organs. He first used every means possible even to the extent of opening the stomach and duodenum to discover or exclude the most frequent site of bleeding. After he was sure that

the most likely cause of bleeding was not present, he re-examined the abdomen and discovered a tumor of the small intestine which as he told you is a rare lesion but which if left untreated would certainly have resulted in the patient's death. Instead, because of Doctor Mahaffey's persistence, a brilliant recovery has ensued. Lastly, I wish to commend the presentation of this report, for it calls to our attention an interesting condition, and though it is rare anyone of us here today may meet a similar case within the near future.

Wallace Frank, Louisville: Dr. Mahaffey is to be commended on two things: First, his very careful and thorough study and preparation of the patient; and, secondly, the successful outcome of the case. He has emphasized in his presentation the fact that bleeding from the intestinal tract may come from tumors that are not large enough to be palpated, and he has further demonstrated that these are frequently not noticeable in the x-ray. We have had, in the past two years, three cases of tremendous hemorrhage from the intestinal tract. Those patients have been studied and studied; they are, fortunately, well; we have done nothing to them but we have not been able to put our finger on the bleeding point. It may be that one of these men has a tumor of this nature. I think it is important that we realize that tumors of the small intestine are exceedingly difficult to diagnose, and in most cases the diagnosis is not made until the abdomen is opened.

We have had two cases of neurofibrosarcoma of the gut. In one case the pre-operative diagnosis was "Ovarian Cyst." The tumor was some twelve inches in diameter. In the other case a pre-operative diagnosis of intestinal neoplasm was made, character unknown. If the man had one, he had ten thousand tumors which began at the ligament of Treitz and ended at the ileocecal valve, truly a von Recklinghausen's disease of the small intestine.

Dr. Mahaffey emphasized the importance of post-operative irradiation, and I think this point is well made. One of my cases refused treatment. She lived about a year and died of recurrence of the disease. We do know that neurofibrosarcoma is exceedingly radiosensitive, and had the patient taken the benefit of x-ray therapy she might still be alive. Most of these cases die either of intestinal obstruction or, which might have happened in Dr. Mahaffey's case, hemorrhage.

It is a most interesting case, and one which, when we see cases of intestinal bleeding, we must bear in mind.

Herman Mahaffey, (in closing): I merely wish to thank Dr. Thompson and Dr. Frank for their discussion. There were a few more points which we had wished to emphasize but did not deal with due to lack of time.

PHEOCHROMOCYTOMA OF THE ADRENAL WITH PAROXYSMAL HYPERTENSION, A CASE RELIEVED BY SURGERY

JOSEPH E. HAMILTON, M. D., F. A. C. S.

Louisville

This dramatic syndrome was first described by Labbe, Tinel and Doumer in 1922¹. By 1937 Wells and Boman² had collected 29 cases, 13 of which were relieved by excision of the tumor. These authors found 55 additional pheochromocytomata, pathologically verified, but either lacking adequate clinical data or failing to present hypertensive crises. Reviews of the literature have also been published by: Eisenberg and Wallerstein³, Belt and Powell⁴, Collier, Field and Durant⁵, Howard and Barker⁶ and others. The case here presented is about the twenty-second to be relieved by operation. It is typical in most respects, both clinically and pathologically.

REPORT OF CASE

Louise L., a 37-year old white housewife, first came to the Louisville City Hospital, August 29, 1938. Sixteen years previously she had had a bilateral oophorectomy at another hospital for a "tumor" of the right ovary, of unknown character. Five years after this operation she began to have continuous vaginal bleeding for which a local physician instituted radium therapy. A diagnostic curettage in the meantime revealed no malignancy and after five months the bleeding stopped permanently. At about this time the patient was also troubled with periodic episodes lasting for several minutes and consisting of weakness, intense throbbing headache, hot flashes, pounding of the heart and dyspnea. After about two years these attacks disappeared. Ten months before admission the patient became aware of a painless lump in her left upper abdomen, which gradually enlarged to its present diameter of about 5 inches. This tumor caused dragging discomfort, nausea and occasional vomiting, especially in the morning after breakfast. The patient also felt increasing fatigue, dyspnea on exertion and orthopnea.

The patient's past history was irrelevant, except for the passage of a urinary calculus 10 years previously. She had been married for 17 years and had one normal full term baby and one miscarriage following a fall.

Examination revealed a well developed

and nourished 37 year old white woman with normal secondary sex characters and distribution of hair. Her blood pressure ranged from 160-105 to 140-80. Pupils and eye grounds were normal and there was no evidence of arteriosclerosis. A rounded, slightly tender mass, approximately 12 cm. in diameter, could be both seen and felt in the left upper quadrant. It was movable and descended slightly upon inspiration, extending about 4 finger breadths below the costal margin in the mid-clavicular line.

A trace of albumin and a few pus cells but no sugar were found in the urine. The blood picture was not remarkable; 4,030,000 red cells, 13 grams hemoglobin, 4,100 leucocytes with normal differential. The Kahn reaction was negative. Blood chemistry revealed non-protein nitrogen 27 milligrams per cent, fasting blood sugar 102 mg. per cent and a normal glucose tolerance curve. In the gastric contents there was a free hydrochloric acid and only 8 units of total acid even after the alcohol meal. A barium enema and gastro-intestinal series proved negative except for displacement of the stomach to the right by an extrinsic mass, shown in the latter study. A roentgenologic study following pneumo-peritoneum revealed that the spleen was normal in size and position and that the mass in the left upper quadrant was apparently continuous with the left kidney. A retrograde pyelogram disclosed pelvis and calices on both sides normal in shape and position in spite of the fact that to the left a mass of uniform density could be seen extending out laterally from the region of the lower pole of the left kidney. With the preoperative impression divided between pancreatic cyst and solitary cyst of the kidney, an exploratory laparotomy was carried out on September 26, 1938. The peritoneum was opened through a transverse upper abdominal incision. A rounded brownish purple mass 12 cm. in diameter was found pushing forward through the gastrocolic ligament. The stomach and pancreas lay above it, the spleen to the left and the colon below. None of these structures, however, were attached to it.

Palpation through a rent in the gastrocolic ligament disclosed that the mass was cystic and that it arose by a broad pedicle from the left kidney region. About 250 c. c. of thick brownish material, resembling old blood, was aspirated partially collapsing the cyst. At this point, the patient's blood pressure had fallen to 130-110, her pulse

rate to 170, so the wound was hastily closed and the collapsed cyst after first being opened, was stitched into the left angle of the wound. The cyst wall was about 1 cm. in thickness, extremely vascular and with a soft, freely oozing purplish lining. A piece was taken for biopsy. In order to control the hemorrhage the cyst cavity was packed with gauze strips. Before the patient left the table her blood pressure had fallen to 130-110, her pulse rate to 140, and she appeared to be in relatively good condition. After the operation the patient received a transfusion of 500 c.c. of citrated blood and her blood pressure stabilized itself in the vicinity of 110-88. Her convalescence on the ward was prolonged until November 29, 1938, by the persistent drainage from the marsupialized cyst. In order to facilitate obliteration of the cavity, a number of installations of Zenker's fixing reagent were made.

Microscopic examination of the biopsy of the cyst wall made by Dr. A. J. Miller of the Pathological Department was in part as follows: "Sections of the cyst wall show many irregular cells with deeply stained nuclei, most probably epitheloid in origin. Many large cells with ingested blood pigment are seen beneath the inner surface. No definite diagnosis of the origin of the cyst can be made from the material submitted."

Analysis of the fluid aspirated from the cyst was negative for pancreatic enzymes but showed 20 milligrams per cent urea and 0.44 per cent albumin.

The patient was seen in clinic on the 13th of March, 1939. The sinus had closed, she had gained 20 pounds and was enjoying excellent health. A mass 6 cm. in diameter could still be felt in the left upper quadrant immediately beneath the site of previous marsupialization. It was solid, non-tender and descended three finger breadths on inspiration.

The patient reported on August 16, 1939, that during the past six weeks she had had several attacks resembling, but more severe than, the ones she used to have 12 years ago. Without warning she would be seized by intense throbbing headache. At the same time her neck would swell and pulsate, her heart would pound and she would feel breathless. Although her extremities would be cold and sweating, sometimes tingling, her body would be "burning up." Her face, pale at first, would soon flush deeply. The initial rush of symptoms would pass in 4 or 5 minutes but the patient would be left for several

hours, weak, nervous and with a dull occipital headache. The attacks would come without attributable cause anytime of day or night. In the more severe ones she would be nauseated and vomit. Since the patient was just recovering from one of her attacks at this interview, her blood pressure was taken and found to be 220-120. It was also noticed that her skin was clammy and cold.

The patient was readmitted to the hospital with a tentative diagnosis of pheochromocytoma with paroxysmal hypertension. The blood and urine examinations were as on the previous admission. The fasting blood sugar was 105 milligrams per cent, the non-protein nitrogen 32 milligrams per cent. Basal oxygen consumption was 16 per cent. Examination of her ocular fundi was not remarkable and a chest plate revealed no enlargement of the heart. A retrograde pyelogram, following peri-renal injection of the left kidney, revealed slight ptosis of the kidney and a rounded mass separate from it and extending from its upper pole up under the left dome of the diaphragm. During her stay on the ward the patient had repeated hypertensive paroxysms when she would become flushed and her blood pressure would mount from basal reading of 130-70 to about 200-120. Unfortunately no blood sugar determinations were taken during a crisis. On one occasion an attempt was made to precipitate an attack by vigorously massaging the left upper quadrant mass for several minutes. However, this met with no success.

On September 29, 1939, a second laparotomy was performed under spinal anesthesia. An upper abdominal transverse incision was made excising the previous scar. This gave excellent exposure. A soft egg-shaped reddish brown mass approximately 11 cm. in length, was found adherent to the site of the previous marsupialization. It extended directly backward through the gastrocolic ligament to the retroperitoneal tissues as described in the previous operation. By gentle blunt dissection through the gastrocolic ligament, the mass was freed from the stomach and pancreas above, the colon below, and was then shelled from its bed which occupied the position of the left suprarenal gland. Only 2 or 3 rather small vessels entered the mass and these were ligated and divided without difficulty. Although the upper pole of the left kidney was easily identified, no trace could be found of the adrenal gland. It was concluded, therefore, especially as

several tags of yellow tissue resembling adrenal cortex were adherent here and there to its capsule, that the tumor had completely replaced the left adrenal. The operation was completed in 63 minutes and the patient left the table in good condition. The patient's blood pressure before commencement of anesthesia was 120-80, her pulse rate 90. When operation started, her blood pressure rose to 170-100, and the pulse rate dropped to 60 where it remained for the rest of the operation. At about the time the tumor was removed the blood pressure fell to 60-50, and at this point 2.5 milligrams of Neosynepherin was injected. The tension rose again until upon completion of the operation it had reached 117-80. Convalescence was uneventful. The patient's blood pressure varied from 110-80 to 130-88. She was discharged October 6, 1939 and has remained free of symptoms. On her last visit, July 10, 1939, her blood pressure was 155-110.

Dr. A. J. Miller's pathological report follows: Gross Description: The tumor is a lobulated, encapsulated, elongated spheroid, with a deep puckered depression anteriorly at the upper pole. Consistency is slightly soft and color is dull brown and marked with hemorrhage. Section reveals several serous lined cavities filled with yellowish fluid and a calcium deposit beneath the puckered area on the surface. The largest cyst measures 15x22x30 mm. and the calcified area 8x15x20 mm. Nowhere is there the yellow color of adrenal cortex. Weight 170 gms. After standing over night in fixing fluid the solution turned deep orange in color, identical with a solution of potassium dichromate (due to the Zenker's installations into the cyst cavity in vivo).

Microscopy: There is a lobulated arrangement to the structure and in some sections there are cysts lined by endothelial-like cells. There is some albuminous residue in the fluid. The parenchymal cells are elongated, have eosin-staining granular cytoplasm and a rather uniform chromatin pattern. There are no rosettes or other definite suggestions of nerve cell differentiation. Numerous cells have eosin-staining inclusion bodies. Cells are arranged in small, solid gland-like forms supported by a moderate amount of well developed stroma that is quite vascular.

Interpretation: Chromatophoroma: There is little time for discussion, but I would like to call attention to the surgical approach, especially in view of the difficulty occasionally encountered in localizing the

tumor preoperatively. In at least 3 cases (Shipley, Mackenzie and McEachern, and Van Epps, Hyndman and Green⁷), a second operation was necessitated because the tumor was not found through the first unilateral incision, abdominal or flank. On the other hand, the transverse upper abdominal incision as described by Sanders⁸ and Gurd⁹, and which was employed in the present case, provides an excellent exposure of the upper abdomen, allowing equally well the exploration of either adrenal or of other regions, should the tumor happen to lie outside the adrenals. Borch-Johnsen¹⁰, in approaching a cystic pheochromocytoma of nearly 2000 gms., used "A transverse incision at the height of the naval," which was later extended. Further details are not given concerning the operation. It was, however, entirely successful.

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DISCUSSION

J. R. Hendon, Louisville: I was privileged to see the patient whose case Dr. Hamilton has just reported and found it to be a highly interesting case. There have been something over a hundred cases of pheochromocytoma reported to the literature. Very few of these were diagnosed before operation and, in fact, many of them were diagnosed as something else preoperatively. Such diagnoses have run from hyperthyroidism to vasomotor instability and have, of course, included neurasthenia. It is highly probable that cases of pheochromocytoma are more frequent in occurrence than would appear to be the case and if the condition is kept in mind chromaffin tumors will be seen more often.

The symptoms and signs of the condition are these: The patients frequently have premonition of the attack; the attack itself is heralded by headache, a sense of restriction in the head and

chest, flushing of the body and usually blanching of the extremities. There is practically always nausea, vomiting and syncope. The diagnostic feature is, of course, the acute rise in blood pressure. Seeing a patient in such an attack it should occur to us to take the blood pressure. The systolic pressure will be found to range well above 200 mm. of mercury and the diastolic pressure is proportionately increased. After subsidence of the attack a normal pressure is found.

I think if blood and urinary sugar examinations could be made during the attack we would find most frequently that the blood sugar values are raised and that glycosuria occurs.

A case recently reported was pronounced dead by the physician who saw the patient and he, as was his habit, administered adrenalin intracardially. Strangely enough the adrenalin revived the patient and after removal of her adrenal tumor she recovered. It is rather surprising that adrenalin would, in such a case, restore the patient. That did happen and leads us to wonder if the material released into the blood stream during an attack is, in fact, adrenalin.

Another thing to be kept in mind concerning such cases is this: they do not show the changes in sexual characteristics and the hirsutism which are seen in tumors of the cortical portions of the suprarenal gland. Aside from the symptoms that I have just mentioned there are no changes in the bodily configuration, the hair distributing and the sexual characteristics of the patients. It appears that other glands of internal secretion are probably not involved in this symptom complex.

Intermediary Fat Metabolism. — Katsch directs attention to the fact that diabetes mellitus is not a clinical entity and that quantitative estimates of the sugar metabolism, although valuable, are not sufficient for the differentiation of its various forms. He emphasizes that the disturbances in the fat metabolism of the diabetic patient are erroneously considered as mere sequels of the disorder. The internal need of sugar forces the increase in the fat metabolism. The extent and type of the disturbance in the fat metabolism do not parallel the severity of diabetes mellitus, particularly if the severity is evaluated only on the basis of the sugar metabolism. In this connection the author points out that a patient with the severest case of lipemia, among 3,000 cases of diabetes mellitus, had only comparatively mild diabetes. Dependence of the lipid metabolism on endocrine factors (thyroid and ovary) reveal constitutional peculiarities, which have an increased significance in diabetic patients. The same can be said about the lipid metabolism with regard to its relation to parenchymal impairment of the liver and kidney.

MEDICAL HORIZONS

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Ninety-four years of fighting for the honest application of scientific knowledge to the demands of health for all people has carried the American Medical Association to the strongest position among medical organizations.

Although its membership represents every shade of political complexion, partisanship has never dominated its patriotism.

Its horizons extend far beyond election days. It will not sell out to political expediency. It will not sell out the idealism that has carried it through the crises of many civilizations.

It is preparing for the defense of Americanism against the attack of paganism.

It is preparing for the maintenance of an advanced democracy unhampered by the subversive influence of foreign autocracies. It fights for the supremacy of the American way of life.

Although every type of religionist is included in its roster, it looks to all of them for loyalty to one ideal of protection and promotion of human health. Cherishing the highest ideals of the most learned profession, it will not sell out to paganistic nihilism. It respects all religionists who are loyal to their beliefs. It believes that devotion to religious precepts is valuable and necessary relief for the loneliness of individualism.

Serving every social level it sympathizes warmly with all who are physically or mentally unfortunate.

Although its membership represents the descendants of every race its fundamental interests are American.

Recognizing the cosmopolitan character of a nation built from its beginnings from refugees from the persecutions and intolerances of foreign autocracies, its hospitality has been continuously generous toward the mental and religious attitudes of the more recent seekers for freedom in our country.

Although it respects the natural affection of new comers for the traditions under which their life patterns have been formed, it believes that all should adapt themselves as soon as possible to national programs which have evolved the American way of life, and should cooperate in

its growth and improvement.

Although American Medicine may be justified in pride of accomplishment, it is not prejudiced against the thinking of any earnest students approach to new solutions of scientific problems. It insists upon complete and honest analyses of all new proposals before accepting and endorsing them.

It welcomes the restless spirit of scientific adventure and encourages it. It has spent more than a million dollars in research in the last twenty-five years. At the same time, however, it has been inflexible in its disapproval of those who would profit from the credulity of ignorance by fraud and deceit and quackery and the promotion of unsubstantiated claims. It has never sold out to commercialism. It believes that Americanism is worth while. It cherishes the ideals of orderly democracy. It despises the devious ways of disloyal propagandists not only in the field of medical service, but in civic life.

It is conscious of the campaign of German sabotage which has been carried on with diplomatic immunity since 1915. It remembers the efforts of the brilliant Count Von Bernsdorff to seduce the Wilson administration and the violent sabotage of Von Papen and Captain Boy-ed. It knows that the same things are going on at this moment. It knows that Russian communism and German socialism have been active here for many years.

It knows that the infiltration of foreign thought has fermented discontent in this country so that some Americans have been led into disloyalty and are now working for the destruction of our democracy and the institution of immediate dictatorship.

It knows that American generosity has been so grossly abused that World revolution is being promoted.

The European war has passed its first anniversary and a year of democratic debating has brought us only to the beginning of preparations. We should not minimize the value of free discussion as provided in our system of representative government, but we can be excused for impatience with such time wasting procedure.

Washington departments seem still to be going along in their own old way—apparently always jealous of special prerogatives. A coordinating agency is, however, in sight which might with Presidential support put things through.

Meanwhile a year of valuable time since

last September's sharp warning from Europe has produced almost nothing. Our medical preparedness should have begun to function immediately after our offer to the Government last September. Always politics restraining patriotism. The Government attacks the medical profession with an accusation of restraint of trade, a profession which has never been a trade and never, as an organization, in any business.

The Government would do well to examine itself as an agent operating in restraint of all progress.

Now, at the request of the War Department in June, the American Medical Association is carrying on an active effort to help the Government toward military preparedness. 175,000 questionnaires have been sent to physicians to discover how qualified, how willing and how loyal they may be. The immediate response justifies the traditional devotion of the medical profession to public service, and the mobilization of physicians is rapidly moving toward readiness for any emergency. Many physicians were officers in the last war and many are reserve officers with some recent military training.

The committee on preparedness is thoughtfully building the skeletal fabric necessary for effective service in every State. Not only for active field service, but for service on draft boards, and protection of civilians at home. The Medical Profession will be ready when called for.

Meanwhile there must be no relaxation of educational standards in the quality of medical care for our country of the future.

Medical horizons should be viewed from high points of idealism. Standing upon firm, well established biological foundations, the physician who wishes to see the highest racial health, might well work for a selective draft of all of our citizens to choose those who may become the parents of future Americans. Inspired education should be directed at the adolescent and carried through the stages of selective mating—of prenatal and maternity experience—to careful feeding and hygiene and early education.

Physical fitness must be recognized as an important step toward national fitness. Fifty-two per cent of Americans are said to be physically competent for hard work. This level must be raised if our medical horizons are to be viewed with satisfaction.

I believe that educators should be urged to turn their minds from sentimental to practical methods of equipping youth for the hard realities of life. I believe that all boys and girls who are physically fit should be vigorously trained from the ages of twelve to eighteen, not to carry guns, or to engage in military technics, but to develop strong healthy bodies which will not only be able to meet emergencies of our national life, but will build sturdy competent citizens.

The athlete has been idealized to the extent that many thousands of us spend many hours of many days sitting in stadia screaming our approval, but making no effort to maintain our own general physical efficiency that might be reflected in stronger children and grandchildren.

While the common effort of our educational system seeks its objective in specialization, average abilities for the practicalities of life are neglected. Fear of regimentation seems to hold the hands of school administrators and limits their vision or understanding of the destructive experiences in indulgent self expression which seems at this moment to be resulting in a disorderly generation.

Physical training of the physically fit and rehabilitation of the physically unfit is largely the hit or miss concern of undirected individuals. Every school and college in the country should be provided with serious medical consultants who in turn should be educated and inspired promoters of national health.

If every college for women or men would emulate the physical training now carried on at West Point for the next twenty years, we should have thousands of young people physically fit for healthy citizenship and prepared to meet emergencies at home or abroad. We should have many thousands of young people so physically fit that they would be willing to soil their white collars and their strong hands with the work of the World.

For many years we have been discussing ways and means of preparing for solution of our internal warfare between employee and employer and still we have more than nine million unemployed. No one seems to know how many of these are physically or morally or mentally unfit or unadjustable to possible demands for their services, but it may be safely assumed on the basis of studies of other groups that more than thirty per cent or more than three millions of them are physically unfit and many more unskilled for work that might

be offered them in more prosperous seasons.

The President of the United States was right when he said that Americans are soft. He also said that "if we are to survive we cannot be soft in a World in which there are dangers—dangers which threaten America—dangers more deadly than were those the pioneers had to face." He also wisely said that the old pioneers "put hard fibre in their American spirit, and strong muscles in the American back."

The selective draft for the war of 1918 and 1919 revealed that from 30 to 40 per cent of those examined were unfit to fight.

Have we Americans profited from the lessons of that experience? Statistics of June, 1940 indicate that we have not.

Defects found in applicants for voluntary enlistment in the Regular Army, month of June, 1940. Second Corps Area, New York City, Colonel Magruder, Lieutenant Drummond.

Examined: 2313
Rejected: 762 or 31.2%. About one out of three rejected.
Passed: 1551.

Details:	
1. Teeth	182
2. Eyes	161
3. Height and Weight	110
4. Ears	86
5. Feet	58
6. Skeletal	34
7. Genito urinary	26
8. Neuro-psychiatric	25
9. Allergy	20
10. Heart	15
11. Abdomen	11
12. Respiratory	6
13. Skin	6
14. Miscellaneous	13

Defects found in Medical Examinations in the United States during the last war.

1. 30% of the National Guard, after years of drill, were rejected when called to national service said Senator Arthur Capper, May 20, 1920.

2. 30% of the draft were rejected. The standards were lowered. 80% would have been rejected if the standards had not been lowered said Major General Leonard Wood, April 12, 1919.

3. 37% of the Pennsylvania quota rejected—and for the remaining 63% an enormous amount of medical corrective work was necessary said Governor Braunbaugh (Pa.) May 2, 1920.

4. Urban and rural.
a. Typical set of cities with no large

amount of foreign population. 10 States, and a corresponding set of counties of similar size in the same states. No city over 30,000 population—

Urban—rejected28.47

Rural—rejected27.96

First report of Provost Marshall General to Secretary of Labor, 1917, page 47.

b. Selective service. 100,000 rural compared with 100,000 urban. New York, Chicago, Philadelphia, Cleveland, Milwaukee, Seattle, St. Louis, Cincinnati, New Orleans.

Urban—rejected21.68

Rural—rejected16.89

Second Report of Provost Marshall General, December 20, 1918. Page 156.

5. Different localities.

Rank first — Rhode Island — 42.42 rejected

Rank tenth — New York—24.00 rejected.

Rank last—Wyoming—12.805 rejected.

Report of Surgeon General M. W. Ireland, and J. H. McCrudy, M. D. Congressional Hearing on S. 3950, May 20, 1920.

6. Local Board rejections and subsequent Army rejections:

1917—Local Board rejected.....29.0

Camp Surgeons added..... 5.8

1918—Local Board rejected.....29.59

Camp Surgeons added..... 8.7

Report of J. R. McCrudy, American Physicians' Review, March, 1920.

7. Physical Fitness of U. S. soldiers in France.

Failure to jump (standing) a 6 foot ditch—28.00

Failure to run 220 yards in 30 seconds—17.00

National Phys. Association Test for boys of 13 years— 6 feet, 6 inches.

Accepted table for adults—220 yards in 27.1/5 seconds.

These figures were collected by Dr. C. Ward Crampton of New York.

Who did profit by the World War experience?

France went a little way along a program for national fitness, but it was mostly talk. England knew the facts and took little action. They thought physical training exercise was silly. They called it "Physical jerks." Germany knew the story of physical unfitness and went all the way. It is said that they copied a good deal of the physical training and athletic program advocated by the New York High Schools and in our Army by Dr. Joseph Raycroft. They were serious about it and are said to have developed a higher average degree of physical fitness than any of the other European nations now at war.

We are boastful of our great schools and colleges—of our greatly increased literacy, of our vast numbers of college students. We have idealized the life of those in the learned professions, so that many incompetents are discontented because they cannot make the grade.

We have educated so many people to wear white collars that there are not enough people who are fit for the skilled mechanical work that we need so much at this time. We have stimulated a false pride in the attainment of college degrees, and dislocated labor by crowding some fields while others are poorly supplied. We have encouraged a complacent snobbery that looks down its nose at productive labor. We have forgotten to teach that healthy existence is built upon practical foundations and we have paid so little attention to physical fitness that we shall have to draft 3,000,000 men for military service if we shall secure 2,000,000 men, and probably proportionately the same number of women for the defensive jobs which can be served by women.

This is indeed a serious indictment of the American civilization.

In medical education most of the current writing and thinking has been in the interest of the development of specialists. Here again practicalities are forgotten. I believe a National Health Program would be promoted by the concentration of medical education upon developing good average physicians for average patients. And I believe that the young doctor of today comes too late into the field of practical service. May I say in brief detail that I believe that much could be gained by permitting those who aspire to practice medicine to elect basic science study at the end of the second year of high school and continue a concentrated study of the sciences through two years of college, at which time they should be given a B. S. degree and then go into medical schools where without repetition of work they should be immediately introduced to a four year course of clinical medicine.

I believe that these students should be well educated in internal medicine, obstetrics and traumatic and minor surgery, in physical therapy and in a basic knowledge of the needs of the public health.

The education of interns should also be a serious drilling in practical clinical experience and the young physician might thereby find himself in practice two or three years earlier than he is today, in his best years, when he may learn how to

live and to become a useful, self supporting independent citizen. This would in no sense let down the standards of competency of the average physician to care for the average patient. It would in no sense lessen the opportunity for specialization and specialists could and would develop themselves to attain the high standards of the specialist boards if that system of certification should continue to be thought advisable.

Medical horizons in America will not be reached until every American shall have available a good physician competent to take care of all of his ordinary physical accidents.

Medical horizons will not become highly illuminated unless all physicians, specialists as well as general practitioners shall be continuously educated. So long as he lives graduate education must be carried to the doctor by methods which seem to be in a satisfactory process of development in some parts of our country.

The specialist is often able to go to school at frequent intervals for refresher courses or for lessons in techniques, but the general practitioner is more likely to be limited in his freedom from his practice and graduate education for the benefit of the average patient must be a painstaking part of any national health program.

Hospital facilities will grow to meet the needs of all our people and if the present interest in transportation prevails, good roads will run to every physical frontier. In the State of New York good roads have brought every citizen within thirty minutes of a physician.

Statistically, the health of the American people measures up to higher standards than are found in any other large nation, but these figures do not satisfy a profession which aims still higher.

In advocating a new health program I believe that a new National Health Department with a Secretary of Health in the Cabinet is as important as a War Department with a Secretary of War.

Defense against disease is as important as defense against a military enemy.

Coordination of all Federal Health agencies under one head will eliminate the confusion of working in many departments and now has the support of several important people in Washington, including the Federal Security Administrator, the Honorable Paul McNutt, whose social vision is to be highly commended.

I believe in centralizing all national

health functions, in the interest of the whole country, but in decentralizing the care of the sick individual by originating his care in the smallest political subdivision such as a school district, where his real condition is known and then carrying his necessary call for help to the township, to the county, to the State in that order, but to the National Government as infrequently as possible.

Sickness is an individual experience which has community importance. Our medical horizons are bounded by the physical fitness of every American. We must seek them with all our strength.

VITAMINS, THEIR USE IN CHILDREN

T. J. MARSHALL, M. D.

Paducah

Doctor Morris Fishbein¹, states that, "The achievements in the science of nutrition which have developed in recent years are among the most significant of all that have been made in modern medicine."

Quoting Dr. Isaac Abt², "One or two decennia before the present period, we had advanced to the point where we were interpreting nutrition in terms of calories, balanced ration and the chemical composition of food stuffs. Little then did we realize the importance of the elements, at that time unknown, which today are conceded to be factors of great importance in human and animal nutrition. Not only the biological assays have convinced us of the existence of vitamins, but chemical discovery of the active principles of some of these factors may be looked upon as one of the most fascinating romances in modern medicine."

It was known for a long time that under certain conditions of partial starvation, certain diseases or states of poor nutrition developed even though the well known food elements—fats, carbohydrates, proteins and minerals were present in the diet. These certain specific forms of disease which were thought to be very rare, in normal times at least, such as scurvy, beri beri and xerophthalmia, formed the starting point for vitamin research. It was in 1747 that Dr. Lind, a surgeon in the British Navy, demonstrated the remarkable effect of lime juice as a preventative against scurvy. In 1884, Tokaki, a Japanese, came to the conclusion that the disease beri beri was of dietary origin, and Eijkman in 1897, also reached the same con-

¹Read before the Kentucky Medical Association, Lexington, September 16-19, 1940.

clusion. It is only recently however, that the accessory food elements, now known as vitamins, have been isolated, as our present knowledge of them dates largely from 1912.

Funk in suggesting the name vitamins proposed it only as a temporary term until their true nature was discovered, and it is now known that they are not amines. However, the term "vitamins" has been justified by use and is more convenient than that of "accessory food factors." As recently as 1914, text books on diseases of children make no references to the vitamins, but at the present time the literature is so voluminous that it is difficult to prepare a paper on the subject. The original four letters of the alphabet have been greatly extended, and many of the original are being sub-divided; and no doubt there are to be discovered vitamins of which, at present, we know nothing about.

According to Dorland's dictionary 1935, the word vitamin is defined as, "One of a class of substances of unknown composition, existing in minute quantities in natural foods, and necessary to normal nutrition and growth, absence of which from the diet produces deficiency diseases."

The baby and the young child, who are naturally on a rather restricted diet, are less likely to receive the vitamins in the diet, than is the older child or the adult and the artificially fed baby is more often deprived of the vitamins than is the breast fed baby.

While it is recognized that all the necessary food factors are essential for the growth and the development of the growing child, and that the lack of any of them will cause poor nutrition and faulty development, it is not in the province of this paper to go into detail regarding all the vitamins of which we have knowledge, but it is being proven that each has a special place in the treatment of children.

Kugelmass₃ states that, "each vitamin has specific body functions not performed by any other constituent, although vitamins like hormones are inter-related in metabolic processes." Spies and others₄, have shown that single deficiency states seldom exist.

Kugelmass further states that, "the precise amount of each of the vitamins required varies with each child even under the same conditions, and is increased by rapid growth, physical exercise, infectious invasion, digestive disturbances and environmental conditions."

The council on pharmacy and chemistry,

and the council on foods₅, has written, "it is becoming apparent that for various reasons, especially lack of knowledge, the people of the United States do not select food to furnish the best possible diets for the money invested. More data are needed to determine actual intakes, but even with the data now available it is possible to point to some general tendencies towards deficiency in the national dietary."

The lack of any one of the vitamins in the diet causes a typical deficiency disease, in which not only are the well known pathological changes found, but other less obvious lesions occur throughout the body, with a lowering of the resistance to infection and a slowing or diminished rate of growth.

Vitamin A was one of the first, if not the first, of the vitamins to be discovered₆. It is present in milk, butter, egg yolk, animal fats, liver and fish oils. It is not found in vegetables or fruits, but is processed in the body from carotene which is present in large amounts in such vegetables as carrots, spinach and chard.

Vitamin A is stored in the visceral tissues, liver and subcutaneous tissues, with a small amount in the lungs and kidneys. The baby is born with a small reserve which is sufficient during the early months of life. The amount of Vitamin A the breast fed baby receives depends upon the mother's diet. The storage of the vitamin is greatest during the periods of rapid growth. It also stimulates growth and is thought to have some relation to the pituitary gland which regulates growth₇. It tends to maintain the integrity of the epithelial tissues of the body, therefore acting as a first line of defense against bacterial invasion.

When the diet is deficient in Vitamin A, there is an increase in the incidence of respiratory, skin, ear and sinus infections, as well as a retardation in growth; there is impairment of the lachrymal apparatus, leading to corneal dryness, a thrombopenia and a diminished ability to resist bacterial infection. Night blindness is one of the early manifestations of the lack of Vitamin A, and sporadic cases of xerophthalmia are found in the United States.

Vitamin B has several factors. It is the first vitamin complex to be recognized and studied as a dietary factor essential to the life and well being of man. It was noted early in the study that the absence of this vitamin resulted in loss of appetite.

Vitamin B was first separated into two fractions. (1) a heat labile component

which was known as B₁ or now as thiamin chloride, which possesses anti-neuritic and anti-beri beri properties; and, (2) heat stable components which are essential for growth and possessing anti pellagra properties and was known as B₂ or G. For sometime B₂ was looked upon as a single substance, but the nomenclature of the Vitamin B complex is undergoing considerable change, as new factors are being isolated and rapid advances in Vitamin B therapy have been made in the last year or two, and it is now known to be of multiple nature, and it is thought that the two most important of the B complex are G or riboflavin and the P. P. factor or nicotinic acid. B₁, or thiamin chloride deficiency in man involves predominantly the nervous and circulatory system and is an important factor in carbohydrate metabolism.

While beri beri has been studied in the adult extensively, but little attention has been paid to its occurrence in children, however, infants may suffer from beri beri when their mothers are also afflicted, and even congenital beri beri is a possibility in absolute avitaminosis in pregnant mothers. Infantile beri beri is of rare occurrence in the United States, but several authentic cases have been reported.

Vitamin B₁ is present in a wide variety of foods, but few are considered potent sources of this factor, making it necessary to depend on several food items to furnish the day's supply of Vitamin B₁. The capacity to store thiamin is rather small. Vitamin B₁ or thiamin chloride is essential for manifestations of appetite, control of gastric tonicity, production of gastric and pancreatic secretions, utilization of carbohydrate and normal bowel movement₈. Children receiving large amounts of thiamin in an adequate diet show enhanced growth₉.

Vitamin B₂ or G or Riboflavin is known to have some function in the oxidation processes of the cell₁₀. While the P. P. factor or nicotinic acid cures such pellagra symptoms as glossitis, stomatitis, ptyalism, vaginitis, urethritis, etc. Vitamin B₁ is necessary to clear up the peripheral neuritis seen in pellagrins₁₁. There are many other derivatives of the Vitamin B complex group being studied whose usefulness will no doubt bring about startling benefits to mankind, for instance, Vitamin B₆ has been used with marked beneficial results in the treatment of a few cases of pseudohypertrophic muscular dystrophy₁₂.

Vitamin C is specifically involved in the prevention and treatment of scurvy₁₃ and

Fishbein₁₄ states "that definite claims for the therapeutic value of ascorbic acid should be permitted only in relation to scurvy until further clinical or experimental evidence has substantiated its usefulness in other states." Considerable advances in the knowledge of the physiology of Vitamin C have been made and it is now claimed to be of value in other conditions. Otain₁₅ thinks it is an efficient remedy in the treatment of whooping cough. Vitamin C has been found to be of value in the treatment of hemorrhagic syndromes and anemias of children₁₆. Chief sources of Vitamin C are found in the citrus fruits, raw cabbage juice, water cress, etc.

Vitamin D is recognized as a specific in the prevention and treatment of rickets, spasmophilia (infantile tetany) and osteomalacia, diseases which are manifestations of abnormal calcium and phosphorus metabolism. Vitamin D neutralizes calcium and phosphorus for bone formation and facilitates calcification of the bones and teeth, it also balances the actions of the parathyroid glands.

Vitamin D has a very limited distribution among the natural foods, the best source is found in the fish oils. It is formed in the skin by ultra violet irradiation. It is stored in the lipid constituents of the brain, thymus, adrenals, skin, liver and the kidneys. It begins to be stored in utero during the last weeks before birth. Infants and children require Vitamin D from sources other than the daily diet to fulfill the body needs.

Large single massive doses of Vitamin D, in the prophylaxis and treatment of rickets have been tried with startling success by many authorities recently_{17 18 19} both by oral and parenteral₁₉ administration.

Vitamin E is widely distributed in nature. Vegetable oils in general are good sources of this factor. This vitamin is probably akin in nature to the Vitamin B complex₂₀.

Vitamin E is necessary for normal gestation in the female and for the reproductive functions of the sperm producing tissues in the male₂₁. At first the reproductive properties of this vitamin were studied and it was believed that Vitamin E was concerned specifically with reproduction, however it is now known to have a growth promoting action in relation to cell multiplication₂₁. Like Vitamin B₆ of the B complex, Vitamin E has been used with benefit in muscular dystrophies_{20 22}.

Perhaps the newest vitamin studied that

has been found necessary to alleviate human suffering is known as Vitamin K, which increases the prothrombin content of the blood and causes a decrease in the clotting time.

Dam and others²³ have revealed that in normal infants a moderate Vitamin K lack, or a low prothrombin develops during the first few days after birth and then according to Quick and Grossman²⁴ the prothrombin is spontaneously restored. In recent months there have been many favorable reports in the literature in which Vitamin K has been used in the treatment of hemorrhagic disease in the new-born^{25 26 27 28 29}. Grossman²⁹ states that Vitamin K is indicated in all surgical cases of less than one week of age and that hypoprothrombinemia associated with hemorrhagic disease of the new-born infant, will respond to Vitamin K therapy.

It is being advocated by some authorities that mothers should receive Vitamin K shortly before delivery as a preventative measure for hemorrhagic disease in the new-born³⁰. Vitamin K is found in sufficient quantities in the average diet, but is not absorbed in the absence of bile.

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SOME PRACTICAL THOUGHTS ABOUT THE EAR

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Any one of us who accepts an invitation to read a paper before this society faces a formidable task in attempting to produce something that will be both interesting and helpful, and therefore requires study as well as ingenuity. After accepting our president's invitation, I asked a highly respected member of this society for a suggestion as to the subject of our discussion tonight and he promptly said "The Ear."

The more we study and treat any portion of the human body the more interested we become in it, and the more wonderful we find it. It is difficult for me to understand how any industrious and thoughtful physician of experience can fail to believe in a divine Being, after studying, treating and marvelling at the anatomy and physiology of the most perfectly formed and most efficiently functioning of all living things: the human body. Hearing and equilibration are taken for granted by human beings, but try to imagine a world without them.

Let us create a rough mental image of the ear. It is very complicated, but a few moments' concentration will do the trick. In our minds let us picture a small cavity, the tympanic cavity. To the outside of this cavity is the ear-drum, or tympanic membrane, which is visible with the otoscope, when the external auditory canal is straightened by pulling the ear outwards. The small cavity contains three little bones, or ossicles, the malleus attached to the inner side of the ear-drum, then the incus and finally the stapes. This chain of ossicles extends across our cavity and connects the ear-drum to the oval window of the vestibule. The round window of the cochlea is just a bit below the oval window. At the front end of our cavity is the opening of the Eustachian canal which ends in the lateral side of the naso-pharynx. At the rear end of our cavity is a rather large opening which leads into the mastoid antrum, the entrance to the aerated mastoid cells, with the lateral sinus above and the facial nerve pursuing an almost wandering course to the posterior wall of the external auditory canal. The above mentioned oval or vestibular and round or cochlear windows are on the inner side of

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our cavity. The oval window is above, and receives the foot-plate of the stapes. The term labyrinth includes both vestibule and cochlea which are contained in a hard bony capsule located roughly to the inner side of our cavity. The eighth nerve divides into vestibular and cochlear branches, and is the nerve of hearing and equilibration.

The proper functioning of the ear is dependent to a great extent upon the throat, post-nasal space, the nose and para-nasal sinuses. Infections and aberrations from the normal anatomic relations can, and do many times, manifest themselves in impairment of aural function. Therefore, in discussing the ear, we should not consider it as a lone organ but should bear in mind its dependence upon adjacent structures.

We will consider briefly some of the commoner conditions that affect the ears. Perhaps the most frequent is inspissated cerumen. In the absence of any pathological condition, the safest and least painful method of removing it is by hydrogen peroxide and irrigation with a warm solution. We all have removed weird objects from external auditory canals. Recently I actually washed out a rather large moth. Some years ago a child put a grain of corn in his ear. The absorption of moisture made it swell so much that it was tightly lodged. Absolute alcohol was dropped in repeatedly, and dehydrated the grain so much that irrigation brought it out. A minimum of probing should be done, for obvious reasons. Last week I saw a boy whose external auditory canal showed the result of probably injudicious or excessive instrumentation.

Otitis media is probably the next in order of frequency. Usually it follows a cold, during which the inflammation and swelling at the inner end of the Eustachian canal partially or totally occlude the lower end. By far the greatest number of cases resolve satisfactorily, but a number of them progress through the serous stage to the purulent, and of these latter some develop purulent mastoiditis. Therefore it behooves us to remember that every person who has a cold is a potential mastoid case and to examine and treat in such a manner that our consciences will be clear if the patient develops purulent mastoiditis despite us. In otitis media much reliance may be placed on rest in bed in a warm room, general care, medication to aid the Eustachian canal to resume its patency, ear-drops to attempt to aid in the absorption

of serous exudate within the middle ear, and the cautious use of sulfanilamide. In this connection, it is well to bear in mind that this drug may mask a complicating mastoiditis and therefore observation of the patient should extend well past the time of the discontinuance of the drug. Personally, I try to remain in the middle of the road as regards myringotomy, believing that proper treatment in neglected cases will often safely obviate the procedure. But once the drum is quite definitely bulging, prompt myringotomy is usually indicated.

A word regarding myringotomy is not out of place. The requirements are satisfactory illumination, a sharp knife, aseptic precautions and a curved incision in the lower posterior quadrant of the drum. The incision should penetrate the drum but the knife should not be entered deep enough to injure any other structure. Usually general anesthesia is indicated but sometimes local anesthesia, using a cocaine-menthol-phenol mixture is adequate. Often the incision of the drum causes the pain on palpation over the involved mastoid antrum to disappear promptly. The mastoid operation is one that really perturbs me, what with the facial nerve, lateral sinus and dura on the edge of the field of operation and the importance of deciding how much of the mastoid is diseased and should be removed. Recently I read that the Supreme Court ruled that injury to the seventh nerve during mastoidectomy is evidence of negligence and therefore compensable.

Probably the next most frequent condition is furunculosis of the external auditory canal, frequently secondary to a discharging middle ear but often with the middle ear not involved. The condition itself is seldom serious but can be excruciatingly painful due to the fact that the skin of the canal is quite closely attached to the underlying cartilage or bone, and therefore the developing furuncle, though of small size, is under tension much higher than if the limiting tissue allowed room for expansion. I believe it is wise to allow these small furuncles to rupture spontaneously in most cases rather than to incise them. Applying a little pure phenol to the apex of the swelling is relatively painless and hastens the emptying of the furuncle without the obvious disadvantages of incision. It is wise to use medicaments to reduce the growth and activity of organisms and to protect the skin from their

invasion, since so many cases have one furuncle after another.

Many elderly people suffer almost intolerable itching within the external canals. Otoscopic examination may show almost nothing or else a varying degree of dryness and scaling of the skin. The condition is not serious organically, but just annoying, perhaps with allergy or dysfunction of the local glands as the cause. If the patient properly applies a mixture (I prefer ammoniated mercury ointment with lanolin) directly to the itching areas once or twice a day, the relief is often satisfactory. Directions for the home-treatments should be exhaustive in detail so that the areas will be treated completely and safely.

Now a few words about some of the less common pathologic conditions of the ear. Otosclerosis is an unfortunate condition, often of a suggestive familial type, with varying deafness, tinnitus, vertigo and paracusis Willisiana (a condition in which conversation seems to be heard better in a noisy environment). The condition is one of new bone formation chiefly of the capsule of the labyrinth and the term clinically refers to the type where stapes ankylosis is present. The etiology is not known. The general physical condition of the patient seems to affect the symptoms, therefore general treatment is indicated in an attempt to halt the progress of the disease. Rather recently the outlook in a number of properly selected cases of otosclerosis has been brightened considerably by good results obtained by endaural fenestration of the external semicircular canal, thus making a new channel for the sound waves to reach the inner ear.

We will mention, without fully discussing, labyrinthitis, an affection of the vestibule, cochlea or both. The chief clinical symptoms are nausea, tinnitus and vertigo, ataxia and impaired hearing, depending on how much of the labyrinth is involved. Numerous pathological conditions in the body may be causative: infection, metastasis, circulatory disturbances, some drugs, syphilis, toxemia—all may be responsible. Meniere's disease consists of the syndrome of three symptoms typical of hemorrhage within the labyrinth: deafness, tinnitus and vertigo.

In closing, permit me to say that hardness of hearing with its various causes, treatments and prognoses will be omitted from a paper of this brevity.

SOME BEHAVIOR PROBLEMS IN INFANCY AND EARLY CHILDHOOD

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In choosing the subject, "Some Behavior Problems in Infancy and Early Childhood," for my paper today, I did so with a clear recognition of the fact that such problems belong in the realm of psychiatry. Very few of us general practitioners, however, are so situated that we can refer each and every problem child which we see to a psychiatrist and therefore, must manage in some way to carry on under our own steam.

"Childhood" is a collective term including all ages between the neonatal period and the termination of puberty. It carries the individual from a condition of complete helplessness to that degree of independence and creative activity which is commensurate with his constitutional, social, and educational background.

Kanner in his writings on child psychiatry points out three distinct and characteristic periods of childhood, namely:

(1) Period of Elementary Socialization comprising the first fifteen-eighteen months of life in the course of which the infant is totally dependent on the persons of his environment. Functions acquired at this age arise almost entirely from within and their adequate development at the proper time may be delayed or hindered through physical illness or through faulty management.

(2) The period of Domestic Socialization comprises the rest of the pre-school age, from eighteen months to four or five years. Its principal achievements consist of the broadening of the functions involved during the first period, training of personal habits and the establishment of interpersonal relations between the child and the members of the household. It revolves about the home as the only focus of interest and source of information.

(3) The third, or period of Communal Socialization, begins with the branching out of the child's contacts into community life. After the child's domestic habits such as eating, sleeping, elimination and care of toys, has become established, it must be given an opportunity to stand on its own feet. In the school he makes friends, learns to fight his own battles, and to con-

sider the rights of others. The school at this period becomes perhaps the most important factor in his life. The realization of the successive periods of socialization is of high educational value and indispensable in the evolution of children's behavior disorders.

When we come to deal with the rank and file of children's behavior disorders the main aim consists in piecing together a number of so-called symptoms which have occurred often enough to have them stand out as a definite disease picture. One definite advantage which the general practitioner has over the specialist is his knowledge of the family background and the environmental influences reflected in the child's make-up. Of extreme importance is the stratum from which he emerged together with the social structure and the standards prevailing in the home.

During the past few decades methods have been devised by which a child's intelligence can be measured objectively. Binet and Simon of France devised the test most commonly employed, the scale beginning at the three year level. The outstanding advantage of the standardization of intelligence is that one no longer has to guess at a child's endowment. It also gives us a dependable means of conforming a child's intellectual capacity at different times with the same method.

As in every medical approach a detailed history and thorough physical examination is done for the first postulate in every case is the correction, so far as possible, of all physical ills. The history together with the complaint should be obtained from parents away from the child's presence and it follows that the child should be examined away from the mother's presence as better cooperation can be secured.

While it is perfectly logical for us general practitioners to explain various behavior disorders as arising from, or result of, a physical disease, we can no longer dismiss them with a diagnosis of irritability, nervousness or upset stomach. We must also be mindful of the fact that the therapeutic approach to behavior disorders is far from satisfactory. The drugs which we have at hand for the treatment of the various ills of the body woefully fail to secure relief in behavior problems.

The time factor in treatment plays a very important role since maladjusted children cannot be cured over night; it often takes weeks and even months of effort on the part of the physician as well as the parents. We must also become recon-

ciled to the fact that so-called "cures" prove to be only temporary and we have no means of determining whether or not the condition alleviated will not show up at some future date.

The emotional reactions of the infant are patterned in a medium of social relationships, for in every household, in every nursery there is a web of life, which becomes registered in the growing personality. The make-up of personality is therefore importantly influenced by family and by social surroundings. We must not jump to the confusing conclusion that we can mold the child as though he were so much clay. He isn't clay, he is an individual with inborn propensities and with inherent constitutional characteristics. As such he is subject to the same laws of growth which shape the progressions of block behavior.

Problems of nutrition cannot be successfully regulated except in terms of behavior of the infant and sometimes also of nurse and of parent. Many feeding difficulties are behavior difficulties arising out of a family situation and the parent-child relationship. The technics of weaning, of supplementary feeding, the development of habits of independence in eating, repugnances and self-selection of foods, all have a definite psychologic aspect. Moreover, there are a host of minor behavior deviations like temper tantrums, thumb-sucking, enuresis, postural peculiarities, excessive fears and timidity, faulty habits of sleep, rest and play which rise in the round of the physician's duties particularly if he projects the early supervision of infant feeding into the later months and years.

The incidence of loss of appetite in pediatric practice has been variously estimated at from fifty to eighty-five per cent. Brennemann states: "Anorexia is not a casual occurrence or an isolated phenomena in childhood but is the rule in that stratum of society in which mothers are lying awake nights planning a gospel diet and the most effective way of administering it." It has been stated that loss of appetite exists only among the well-to-do and that a poor appetite is rare among the poor. In my short period of practice, however, I have found this condition existing not only among children of well-to-do parents but among the poor classes as well. We doctors are frequently the etiological factor in the world set-up, with our teaching of the dangers of over-feeding, under nutrition and deviation from the rigid rules about quantities, percentages, calories, intervals and stools, together with a campaign of frequent weighing and meas-

uring, in order to attain so called standards of perfection; we have tried to make of the infant something of a machine to be oiled with certain kinds of oil only, at certain times only, in a certain manner only, and according to specifications provided for all machines regardless of their special makes and performances.

Sometime ago a study was carried out at the Children's Memorial Hospital in Chicago, which included fifteen children. Cooked and raw, uncombined, unseasoned and unsophisticated foods were served according to an unvaried schedule of three meals a day and no food was given between meals. Each child had his own small table, and the foods for the meals were set before him on a tray. The children ate with spoons or fingers, depending on ability and preference, and empty dishes were promptly refilled to make sure that the children got all they wanted of everything. The food and eating were never discussed by the attendants in the presence of the children. In this setting anorexia, other than a transient loss of appetite with acute par-enteral infection, was unknown among them, all eating heartily with keen appetite, day in and day out. It was not unusual for children to eat three or four bananas at a meal or five to seven servings of potatoes or meat. One child a year old frequently drank a quart of milk at his noon meal besides eating other food. Yet none were fat and all were solid, well-built children, healthy and vigorous, presenting no problems in behavior. The study demonstrated that under the conditions of the experiment and with such natural food-stuffs young children could choose their diets and thrive without adult direction of eating.

Artificially fed infants appear to be the only large group on whom identical quantities for successive meals are meticulously imposed, and one cannot but wonder whether the comfort of these infants who exercised choice not only of formulas but of quantities and their complete freedom from digestive discomforts and symptoms of any sort were not due rather to the following of this natural eating pattern than to the combinations made by their choices of formulas.

While we all realize that the great majority of babies eat what they should and present no difficult problems to the mother, yet there are some babies who give trouble. Unfortunately, the babies who do cause trouble and their long-suffering mothers and fathers are so vocal that it is

fairly easy to think that the majority of babies go on hunger strikes and upset the whole household at every meal.

Recognizing that most normal children have happy mealtimes, still there are some who present the all too common meal time "scene." Surrounded by every approach to an ideal situation, plenty of good food and favorable environment, science and art have done much to make the modern children contented and happy, yet these little tyrants rule their world with resulting injury to themselves and cause anxiety and distress to others in the family. Dinner tables become veritable battlefields. Fathers grow irritable, mothers develop "nerves," and each scene but further aggravates a serious problem and makes correction increasingly difficult.

The correction of this problem lies in educating the parents to ignore the meal time scenes, ending their meal at the proper time, removing the unused food, and allowing the child to go hungry until the next regular mealtime.

Fear is perhaps the most common emotion which human beings experience. It is extremely doubtful if the child has any inherent fears at birth. Most fears are produced by some experience through which the individual has had to pass in early life.

In dealing with children we are very prone to speak of their foolish fears, yet they are foolish and unreasonable to us adults simply because of our inability to understand how certain experiences have left upon the mind of the child impressions and feelings which govern conduct for a long time. A large number of parents frighten children either as a punishment or as a means of obtaining desired conduct, and perhaps only a very few parents take the fears experienced by their children seriously enough. They do not make inquiry into their cause nor make efforts to eradicate them by careful explanation.

The instinct of fear lies at the basis of numerous psychological traits and attitudes which are definitely beneficial. It is impossible to think of a normal child growing up altogether devoid of fear, for fear is natural. In making an analysis of fear, whether it is in children, adults, or animals, we always find that fear has to do with escape from pain or danger. Properly trained and educated, fear is a normal form of self preservation.

The prevention of fear is always better than cure. First of all it is wise to respect the child's fear whatever it may be, even

if it seems altogether imaginary. It has a basic cause and is a reality to the child. If sufficient time is taken, it is possible in a great many cases to get at the basis of the fear through questioning and conversation with the child. However, it is a common mistake to attempt to destroy the fear altogether. It is much better to rationalize the fear, to grant the childish privilege of fearing but direct the fear and temper its intensity. Children should not be shamed for cowardice, but rather praised, since commendation will build up self-confidence, whereas condemnation can undermine it.

Deliberate lying, misrepresenting the facts of the case, and tendencies to "make believe," sometimes with marked elaborations, are extremely common in children. These deviations from absolute truth are much less well defined as abnormal conduct than a means of defense, an effort of the child to avoid the humiliation of confession and subsequent punishment. It is exactly what one would expect the child to do in his effort to protect himself. Successful lying which goes undetected gives the child, consciously or unconsciously, a sense of power and satisfaction owing to the fact that he has attained his end by his effort. This is especially true with the group of misrepresentations that are consciously utilized to cover up other misdemeanors.

The most vicious type of lying is that usually prompted by jealousy or by resentment toward members of the family or intimate acquaintances. This might be termed slanderous lying, the object of which is to misrepresent or place in an uncomfortable situation the individual about whom the lies are told.

Less offensive and not particularly serious is the lying of the child who is inclined to "put himself across" in a big way by exaggerating his achievements. Fabrications which tend to reflect to the credit of the child are normal mental processes in early life. Many children live in a make-believe world, and parents are apt to interpret the child's descriptions of his dream world as deliberate lying. But the whole motive is quite different, and except for making the child understand that he is not dealing with the real world and that everyone to whom he tells his tales understands that fact too, nothing need be done. Fantasies which are the products of day dreaming often serve a very useful purpose in the development of the child's mental life.

The expression of anger is common in

infancy, but is gradually modified in childhood. The term "tantrum" may be applied to severe manifestations of anger such as throwing himself on the floor, screaming and violently gesticulating. Some children seem to inherit a violent temper. In others the basic disturbances lie in the child's failure in his adaptation to his environment, due to insecurity and anxiety. This failure of adaptation leaves three positive avenues open to the child: Develop mental standstill, even to the point of regression to a previous stage of existence in which there was a clear feeling of security or a turning away from reality to find consolation in thumb-sucking, masturbation, and rhythmic body-movements or spiteful acts. Out of the latter motor reactions arise fainting problems, vomiting, rebellious wetting and soiling, destructiveness, breath holding, spasm and temper tantrums. The remedial measures or line of treatment for the various disorders of behavior are many and varied. A firm determination on the part of the parent will gradually overcome many of these problems. In others, reward or punishment may be found to be the proper corrective measures. Most cases, however, yield to the rule that any function of the body will become weaker if its purpose is ineffectual. In other words, that the friendly disposition gets results, but that the display of temper always ends in defeat.

The home must be considered the workshop in which the personality of the child is being developed, and the personalities of the parents will make up, to a very large extent, the mental atmosphere in which the child has to live. This mental atmosphere may easily become contaminated and quite as dangerous to the mental life of the child as scarlet fever or diphtheria would be to his physical well-being. Faulty habits are invariably due to the imitation of bad examples. Yet one is quite safe in saying that the imitation of the bad example is frequently not so dangerous to the child's mental life as the way in which the indiscretion is treated by the parent.

Parents who contribute largely to the inadequate development of the personality of their children may be divided into well-defined groups. There is the mother, worn and wearied by her routine household cares, who tries to supplement the family budget by putting in a few hours scrubbing floors when she should be in bed and who has little energy, either physical or mental left for her children's welfare. Contrast her with the work-avoiding, duty

shirking, pleasure-loving mother, who feels that her duty is ended at the birth of the child and turns over her responsibilities to a nurse-maid. Again, there is the mother with most excellent intentions, whose interest is apt to defeat its very purpose. Usually she is over-solicitous and caters to every whim and desire of the child. All too frequently she is emotionally unstable, and the child soon finds out that there are no definite rules and regulations about discipline. What is condoned today is punished tomorrow; and in spite of ability to adjust rapidly, he finds it difficult or impossible to follow a consistent line of conduct. There is no situation more pathetic for both mother and child than that which confronts the mentally defective mother who is doing the best she can with what she has and yet is failing and recognizing her own failure.

The family physician can help parents considerably in the mental hygiene of their children by trying to understand, inform and reassure them. The average mother wants and needs enlightenment about the child's state of health, about what to expect and not to expect of him at a given age.

In conclusion, we must ever keep in mind the fact that children are truly young adults who need patience and understanding of all concerned in their efforts to become oriented in an adult world.

Treatment of Chancroid with Sulfanilamide.

—Bachelor and Lees treated cases of chancroid with sulfanilamide by mouth. Four cases represented relapses after treatment with dmelcos vaccine. Cure was effected in all. The number of days for cure to take place varied from five up to eleven; the average was nine days. The average dose of sulfanilamide was 50 Gm. The dosage varied from 34 to 76 Gm. The use of sulfanilamide is not devoid of risk. One patient had eaten three eggs and had taken two acetylsalicylic acid tablets during the five days of treatment. After 34 Gm. of sulfanilamide in five days he vomited, the pulse rate was 120 per minute and the temperature was 102.2 F. Even the exertion of speaking tired him. The chancroid, however, healed rapidly, with prompt subsidence of the adenitis without abscess formation. In one case the ulcers healed rapidly under sulfanilamide treatment but there was evidence of generalized syphilis, and positive Wassermann and Kahn tests were obtained three weeks later. Sulfanilamide in chancroid is suitable for treating ambulatory patients and outpatients, but strict supervision and full cooperation are required when large doses are given.

SURGICAL CONSIDERATIONS OF THE GALL BLADDER AND BILE DUCTS: FACTORS INFLUENCING MORTALITY AND MORBIDITY

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A review of the records of a large group of patients treated for inflammatory lesions of the gall bladder and bile ducts in the Massachusetts General Hospital leads to certain deductions regarding the management of this frequent disorder. From October 1, 1930 to October 1, 1939, 2,088 patients were operated on for diseases of the gall bladder and bile ducts, exclusive of malignant disease and injuries of the ducts. 39 members of the visiting staff and 33 of the resident staff participated in these procedures. 78 patients failed to survive their hospital stay, a mortality of 3.73%. In addition to these deaths, there were many patients with prolonged hospitalization and convalescence beyond the average. In this discussion, we propose to emphasize the factors influencing the mortality and the morbidity in this group of patients.

EXTENT OF PATHOLOGY AND TYPE OF OPERATIVE PROCEDURE: In slightly over half of this group, 1,183 out of 2,088, simple cholecystectomy was done. Of these, only 29 succumbed to operation, a mortality rate of 2.45%. During the last four-year period, there was a run of 432 cholecystectomies with 7 deaths, a rate of 1.62% mortality. (1) This leads to the immediate deduction that if the patient submits to operation while the disease is localized in the gall bladder itself, the risk of operation is very definitely reduced. This is particularly true if the operation is undertaken in a careful manner and the modern methods of preparation and after-care, at our disposal, are utilized.

130 patients entered the hospital in such a precarious state of health that only cholecystostomy was undertaken and this was usually done under local anesthesia. There were 16 deaths in this group, a mortality rate of 12.3%. These figures might be interpreted to mean that drainage of the gall bladder carries greater risk than its removal. Also, one might deduct that there is no place for simple drainage of this organ in the routine management of such cases. We are sure, however, that most of these patients would not have with-

stood a more extensive operation and that many of them were given the benefit of a life-saving measure. It does strongly indicate the increased danger of delay in the treatment of gall bladder disease. The majority of these patients had suffered from repeated attacks of biliary colic and had been under medical treatment for the relief of these and other related digestive disturbances for many years.

775 patients had common duct exploration, in addition to cholecystectomy. Of these, 33 died, a mortality rate of 4.25%. These duct explorations were done for definite indications of pathology within them. (2). The history of patient will give certain information relative to the probability of duct stones. The most reliable evidence, other than the history of jaundice, is that of very frequent attacks of colic. Findings at operation will also indicate the possibility of stones within the duct. Both the history before operation and the careful examination of the region must be taken into consideration unless we leave stones behind. Inasmuch as the mortality rate is higher when duct exploration was carried out, we studied the records of these cases more carefully and found that when stones were removed, the mortality was 7.16%; while in those who had a negative exploration of the duct, the rate was 2.04%. Therefore, it is justifiable to explore the ducts when indications are correct, although we must be prepared to find stones in only approximately half of the ducts opened. We will, in addition, find approximately 6% of the duct outlets smaller than normal and this condition can safely be corrected by a gentle, gradual dilatation of the sphincter of Oddi. The increase in mortality rate in duct exploration has often been attributed to that procedure alone and, for this reason, many surgeons have felt unjustified in adding this to cholecystectomy except in the presence of jaundice or when a stone could be felt within the duct. Our figures indicate that when the exploration yields no stone from the duct, the mortality is no greater than in simple cholecystectomy. We believe this may be due to the carefully worked out technique of duct exploration now in use. The chief lesson we learn from the higher death rate, when stones are found within the ducts, is that these patients have been unfortunate enough to have their operation delayed until the ducts became involved. This means that liver damage has taken place before operative interference has been undertaken. Infection throughout

the biliary system is the end-result of many common duct stones. That there should be an increased hazard to surgery under these circumstances is easily understood. One may argue that stones may form within the ducts irrespective of the gall bladder; this is, however, rarely the case. The evidence is overwhelming that the pathological process starts in the gall bladder and the ducts become secondarily involved. The stones, removed from the ducts years after cholecystectomy, may have originated in the ducts but in these cases, the duct infection had followed a diseased gall bladder. More often, these stones represent over-looked pathology at the original operation.

AGE OF THE PATIENT, OBESITY AND OTHER COMPLICATING FACTORS: The extent of the pathological process might be correlated with the age of the patient and, in many instances, this is true. A great many victims of gall bladder disease have suffered from middle life to old age before the process has progressed to a point where surgery is imperative as a life-saving measure. Often ill health must reach a desperate stage to outweigh the dread of operation and the disability associated with it. This procrastination is not wholly the fault of the patient. Both he and the physician consider the question in a distorted fashion. That they are justified in this attitude is partially, but not wholly, the fault of the surgeon. That there is continuous damage to the vital organs from a focus of infection is generally accepted. That there is a specific damage to the liver in such cases is less often emphasized. Nothing can be more tragic than an unfortunate outcome from a surgical procedure of election for a lesion that is compatible with reasonable health and happiness. On the other hand, if one considers the subsequent increase in the risk of operation during an unabating acute phase or after the general health has been undermined by repeated bouts or continued infection, the situation takes on a different aspect. We have already pointed out that the risk of simple cholecystectomy is not great. We must also call attention to the fact that many of our cases were done during an acute attack of inflammation or while such a process was subsiding. Actually, cholecystectomy, at a time of election, will carry a lower mortality rate than 1.6%.

Although the age of the patient makes a difference in the risk of operation, we feel that this may be better interpreted on the basis that more of the younger ones had a less complicated process to deal with.

Sanders (3) has studied the results on two groups of gall bladder patients done in the same Clinic. The mortality rate was much lower in those with an average age of 45 as compared to a similar group whose age averaged 55.

Complicating diseases such as obesity, diabetes, and hypertension do of course increase the hazard of surgery. Many cases of chronic and subacute pancreatitis, which definitely increase the risk, could have been safely relieved before the pancreas had become secondarily involved. Jaundice of long standing has always added to the risk of operation. Now with the advent of Vitamin K, the hazard of fatal bleeding has been eliminated. (4)

PREPARATION OF THE PATIENT FOR SURGERY: Too often the individual, who is to undergo elective surgery on the biliary system, enters the hospital in a state of physical exhaustion the evening preceding operation. That such a patient should be subjected to the necessary strain of a major procedure is as unreasonable as to expect a tired horse to win a race. Also, there is a considerable amount of discussion among surgeons in regard to early or immediate operation in acute cholecystitis. In the former type of patient, there is no excuse for the offending surgeon. He should refuse to proceed until his patient is in optimum condition. This means rest, peace of mind, and a careful attention to fluids, diet, and bowel regimen. In the acute cases, we are faced with the shock that comes with the onset of acute inflammation and the rapid depletion of vital sources due to fever, vomiting, or the inability to absorb from the gastro-intestinal tract. These patients more often enter the hospital in a state of dehydration, acidosis, and other chemical derangements. Many of them have been ill for several days and only consent to hospitalization after it is obvious to the patient, the family, and the physician that this episode will not abate. That such a patient should be subjected to immediate operation seems incredible. Rarely, if ever, should the acute gall bladder be operated on as an emergency in the night. The gall bladder seldom ruptures into the free peritoneal cavity; when it does, the shock of the acute process usually makes it unwise to operate immediately. Nearly always, if rupture takes place, the neighboring omentum, colon and liver will wall it off. Such patients should be hospitalized early; they should be carefully evaluated; their fluid balance re-established before surgery is undertaken. Whether

one decides to proceed regardless of improvement, after an interval of 12 to 24 hours, is not particularly important. The results will be good, in any case, if the patient has been prepared in such a manner that the added shock of operation is not too great. The advantages of early operation are that there is a shorter hospitalization and convalescence. The disadvantages are, in a small percentage of cases, that the gall bladder cannot be removed and a temporary cholecystostomy must be done. The patients, that do not improve as far as fever, leucocytosis, and local tenderness are concerned, should be done as soon as fluid balance has been restored and adequate facilities are at hand. Those who show steady improvement at twelve hourly observation intervals may be allowed to recover from this attack and have an elective procedure after a period of ten days to several weeks. This prolongs the disability, since the recovery period from the acute phase in itself is about as long as the post-operative hospital stay. Unless there are good reasons for postponing operation, such as acute upper respiratory disease, I would favor early surgery for acute cholecystitis. I mean by this that the operation may well be done during the subsiding inflammatory process. There are stages of inflammation that increase the hazard of surgery by making hemostasis difficult and it is hard to determine the exact state of the situation before operation. On the whole, I believe it is a good rule to try to get the patient ready for operation within 48 hours of the onset and proceed. If the patient does not arrive within this time limit and improve steadily, then usually a more satisfactory operation can be done ten days later.

OPERATIVE TECHNIQUE: If we are going to advise surgery early in gall bladder disease, we must take the responsibility for the patient's safety. It behooves us to leave nothing within our power undone to bring about a happy result. There should be a careful pre-operative preparation and attention to the safest anesthesia in this particular patient is imperative. Adequate facilities for an ideal surgical procedure are necessary. The after-care must be well thought out and complications anticipated.

The type of operation must be one that adequately eliminates the disease process without damage to important structures. Haemostasis must be perfect in all stages so that the field is clear at all times; this in itself simplifies the accurate identification of blood vessels and ducts. Time is of

little consideration if the preparation has been right, and the anesthesia as it should be. There is still too much residual influence for speed, left over from the early days of surgery when adequate anesthesia was unavailable. Too often, the surgeon is intimidated by the feeling that he is taking more time than a competitor. This is not a plea for unwarranted puttering during a surgical operation. Clear thinking beforehand and a constant concentration on the work at hand will allow a careful painstaking progression with safety and without a waste of time. Natural ability, training and experience all play a role in successful surgery, and there is rarely any justification for the unexpected injury of a neighboring structure; such a catastrophe is nearly always due to inadequate exposure, haste, or a field obscured by bleeding. It seems paradoxical to state that no structure should be clamped or severed that is not accurately identified, yet one often sees the result of such misadventure.

Inasmuch as it is necessary to extirpate the gall bladder in various stages of inflammation, it is well to consider the approach to the cystic duct and artery from different angles. In the early chronic state of inflammation on a ptotic individual, the exposure of the duct region is greatly simplified. In such a patient, the surgeon can accurately identify the common hepatic and the cystic duct and artery. This makes a quick, adequate procedure in a practically bloodless field. This anatomical approach however is often difficult, due to the depth of the structures and the inflammatory processes around them. If one persists in these difficult dissections, a certain number of serious sequellae will result. In addition to the distortion from adhesions, one must bear in mind the frequency of anatomical variations in the ducts and blood vessels. An analysis of the injured common ducts, sent into our clinic for repair, shows that nearly all of these technical errors have taken place when the dissection had been made from the ducts towards the fundus. This has led us to develop and advocate the more frequent use of a direct approach from the fundus towards the ducts.(5) This is simplified, if artificial edema is produced by the injection of salt solution beneath the serous coat by means of a fine hypodermic needle. One may, in this manner, more adequately save the capsule of Glisson lying between the gall bladder and the liver. A cuff of the serous coat is more easily preserved so that the denuded area can be adequately periton-

ealized. The veins draining the gall bladder can be clamped and tied as they go directly into the liver. Often, these venous channels are accompanied by small accessory bile ducts, the tying of which decreases the seepage of bile during convalescence. All these precautions lead to a more uneventful recovery and prevent many late symptoms from adhesions between the gall bladder bed and the duodenum.

The need for concurrent exploration of the hepatic ducts at the time of cholecystectomy has been well proved. Indications for this procedure are clear-cut and must not be ignored lest we are willing to accept a large percentage of unrelieved patients. In our series of cases, we have found stones in the ducts in approximately 20% of all patients operated upon for biliary tract disease in the past five years. As the incidence of duct exploration has increased, there has been an increase in the number of stones found within them. We realize that a considerable number of such stones may pass through the papilla of Vater after cholecystectomy; some of them without much disturbance, but often these continue to produce symptoms that are incompatible with comfort and health. There are a few patients who develop symptoms months or years after cholecystectomy, but this number can be reduced to the minimum if a careful search of the ducts is made at the original operation. If one observes the proper criteria for duct exploration, he will feel obligated to investigate approximately twice as many ducts as he will find stones within them. We have pointed out above that this negative exploration in our cases has not materially increased the mortality. When stones are found in the ducts, however, there is an added mortality based, we believe, on the co-existing infection in the intrahepatic biliary system.

Since we are obligated to explore a high percentage of ducts, we must work out a method that carries with it the minimum added danger. We have previously described in detail a method that has been satisfactory in a large group of patients. That others have found equally safe procedures, we are free to admit. Each surgeon must work out a technique that in his hands gives the maximum of relieved patients with minimum morbidity and mortality.

The duct should often be exposed and carefully investigated before the gall bladder is sacrificed. This is particularly true

where there is a possibility that the obstruction at the duct outlet may be due to tumor. Under these circumstances, a biopsy curette may be used to advantage. If tumor is encountered, the safest procedure is an anastomosis between the gall bladder and stomach or duodenum, even if one plans a secondary approach in the hope of resecting the involved area.

Usually duct exploration may be safely done after removal of the gall bladder. It is essential to obtain adequate exposure in a bloodless field. The duct should be aspirated with a fine needle before it is opened. This precaution often saves an embarrassing situation and is particularly indicated in secondary operations in this region. The incision in the duct need not be longer than the diameter of this structure. The bile should be picked up with a suction tip since infection may spread from this source. Cultures of the bile are worthwhile at this time, since a knowledge of the type of bacteria present may be of importance from the standpoint of future chemotherapy. The incision in the duct is best held open by fine silk gut sutures, since the instruments devised for this purpose may cause irreparable trauma. Having exposed and opened the common hepatic duct, the operator may find it of great advantage to complete his exploration from the left side of the patient. Instruments can be easily guided under vision and palpation of the area more satisfactorily carried out. It is incredible to those, who have tried it for the first time, to ascertain the ease of manipulation and the perfect control of the region when one is able to place two fingers of the left hand in the foramen of Winslow and see the overlying structures accurately.

Having removed palpable stones by milking them into the surgical aperture, one then proceeds to remove any remaining stones or detritus by stone forceps, scoops, and a stream of normal salt solution forced into the biliary system by a bulb syringe.

One should then determine the patency of the duct outlet. This may be done by a variety of methods. We have found the Bakes (6) long olive-tipped bougies with malleable handles very satisfactory for this purpose. These instruments are smooth and graduated from 3 to 10 mms. If they are used with gentleness and care, the papilla can be safely dilated from its normal 3 mm. diameter to a size just under the diameter of the duct itself. There is little need of dilatation beyond the esti-

mated calibre of the right and left hepatic ducts and these radicals are usually slightly more than half the size of the common hepatic duct. The purpose of such instrumentation is, in the first place, to insure the patency of the duct outlet. One may stretch this outlet to 7 mms., which was the average in our 561 such manipulations, and still be within physiological limits. This dilatation will enhance the flow of bile into the duodenum, allow for the passage of detritus and stones hidden above the portal fissure, and leave a minimum of individuals to have recurrent or residual symptoms. In our clinic, this procedure has reduced the number of patients with subsequent symptoms from approximately 10 per cent to 2 per cent. In one case, duodenal reflux occurred following this maneuver, which ceased in 21 days. No instance of serious infection, ascending or otherwise, and no cicatricial obstruction occurred in our series.

Having explored the common hepatic duct, one should establish drainage of the duct by means of a suitable tube. This may be done by a small catheter through the cystic duct, as advocated by Reid. (7) This allows a complete closure of the incision in the duct and a better control of hydrostatics; on occasion, we have found it advantageous, particularly if prolonged drainage is anticipated. In the routine cases, however, we have found the catheter difficult to remove in 10 or 12 days and, occasionally, bile drainage has continued for a slightly longer period. The T tube method of drainage is satisfactory and has some advantages. These are, that there is less trouble with bile leakage around the tube and that, if prolonged drainage or irrigation of the duct system is desired, the tube remained in place better than a catheter. Our chief objection to it is probably largely theoretical but it is obvious that its removal causes greater trauma to the duct. Usually, we are content to use a whistle-tipped urethral catheter of 10 to 12 French size. If the duct is small in calibre, the tube is directed toward the liver. If the duct is large, it is directed towards the duodenum. The purpose of such a tube is to provide a safety valve within the duct. Its need has passed as soon as the reaction to instrumentation of the duct outlet has subsided. One may safely remove it after ten days following which there is little drainage along its tract.

That it is unwise to attempt a watertight closure of the duct is illustrated by 28 such cases treated by this manner in our

series. The convalescence was often stormy and, at least, 9 of them developed bile peritonitis. It is also of great importance to be sure the tube within the duct is draining bile before the patient leaves the operating table. If one finds no bile coming from the tube a few hours after operation, it is wise to re-open the wound and establish proper drainage. If this is not done, bile peritonitis is almost sure to occur and this complication carried a mortality of 22% in our series.

DRAINAGE OF THE ABDOMEN: Abell (8) has reported a large number of cholecystectomies with tight closure of the abdomen. One could not expect to improve on the low mortality figures in his series. Doubtless, one may select many cases that would do well without this added maneuver. When the duct is explored, however, it is necessary to establish external drainage because of the difficulty in obtaining an absolutely tight suture line in the duct incision. Since we explore such a large percentage of ducts, we have become accustomed to routinely drain the region of operation. We fully appreciate the disadvantage of such a drain and have adopted the stab wound counter incision for this purpose. If one visualizes the course of any liquid from the region of the portal fissure, it is obvious that it runs down its natural water shed to the right subhepatic space described by Rutherford Morison. (9) By establishing a short drain through the abdominal wall below the tip of the 12th rib, one can eliminate most of the disagreeable features of drainage. This allows a tight closure of the abdominal incision, thus reducing wound infection and post-operative hernia. If properly placed under vision, such a drain functions well, is removed without great discomfort and shortens the convalescence over those who have been drained through a vertical wound. We have come to feel that this method of drainage creates so little disturbance that its use does not complicate convalescence.

SUMMARY AND CONCLUSIONS

1. Cholecystectomy during the early stages of acute or chronic inflammation is associated with a low mortality.
2. Gall bladders containing stones should be removed as soon as proper arrangements can be made after their discovery.
3. The operative mortality rate in the acute phases of inflammation is greater

than in the chronic states.

4. Biliary tract disease, which has progressed to that point where stones are found within the ducts, carries a much greater risk than in those confined to the gall bladder alone.

5. Duct exploration was indicated in a high percentage of patients with biliary tract disease entering the Massachusetts General Hospital.

6. Consideration of cholecystectomy from the fundus towards the ducts in many cases is advocated.

7. Routine instrumentation of the papilla of Vater in common duct exploration has been helpful in reducing the morbidity and has not increased the mortality.

8. Drainage of the common bile duct is advocated if this structure is explored.

9. Stab wound drainage to the subhepatic space has reduced morbidity and post-operative complications.

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Speakers Guide: "I have checked up almost '57 varieties' of places for a public speaker to park his hands," writes Dr. John F. Cowan. "In pockets, trousers, coat, vest; upper pockets, lower, rear, hung by thumbs or 'immersed'; hooked in vest armholes; clasped across tummy, ditto back; wadding handkerchief, and unwadding; clenching lapels of coat; pounding desk; brushing head, slapping (camouflaged) at flies, full-arm gestures, half-arm, finger; pointing at audience; twisting mustache; finger-tips together uplifted; fumbling papers; pulling down vest; snapping, and, when not otherwise emphasizing the truth, sawing imaginary wood in the air."—*Christian Advocate*.

APPLIED PATHOLOGY OF THE PARANASAL SINUSES

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The physiologic and anatomic alteration called pathology, within the mucosa of the paranasal sinuses as a result of disease may be temporary or permanent. The disease underlying the pathology may be either acute or chronic. Broadly speaking, a temporary change from the normal histologic structure usually results from an acute, while a permanent change is induced by a chronic process. There are exceptions to this statement, as you will note later in this paper.

An inflammatory reaction of the mucous membrane lining the paranasal sinuses may be excited by physical, chemical or bacterial means. When physical or chemical agents are the exciting factors, the reaction of inflammation is primarily due to the irritating effect of dead or broken-down tissue cells and their decomposition products; while pathogenic bacteria excite inflammation through the irritating effects of their toxins. The inflammation which concerns the physician is practically always due to pathogenic bacteria; hence only the changes in the tissues as produced by microorganisms will be discussed.

It is known that bacteria per se can not cause inflammation in the presence of normal functioning sinus mucosa. It is true that microorganisms may enter the sinuses through their ostia with each respiratory cycle, they are quickly removed by the coordinated wave-like movements of the cilia or destroyed by the bacteriostatic properties of the mucous secretions. Hence it is seen that the normal sinus mucosa possess defensive or autosterilizing powers. There must be a derangement of the function of the engrafting growth and multiplication of microorganisms. This derangement is justly called "pathologic physiology." Therefore, bacteria are the sparks which ignite the pre-existing pathology, i. e., pathologic physiology, causing greater altering of structure, gross and microscopic. This change is termed pathologic anatomy.

To understand thoroughly the pathologic changes in the lining mucous membrane of the sinuses, one must be familiar with the normal histologic structure. Therefore a brief review of the microscopic anatomy

seems not to be superfluous. One recalls that the mucosa of the various sinuses is, with slight variations, the same. It is made up of three layers (1) the inner layer of stratified columnar ciliated epithelium; (2) the middle, sometimes called the glandular layer or tunica propia, consists of a frame-work of fibrous connective tissue. In this layer are found blood vessels, lymphatics and mucous glands; (3) the outer or periosteal layer is loosely attached and serves as a periosteum to the surrounding bones. It consists of dense fibrous connective tissue and contains blood vessels, which pierce the cortex to supply nourishment to the underlying bones. This layer, similar to true periosteum, has the ability to digest and form new bone under certain conditions.

As a whole the mucous membrane is very delicate and thin, rarely thicker than ordinary tissue paper. The three layers are frequently so intermingled that a differentiation is sometimes difficult.

In inflammatory affections of the sinuses the tissue changes, as observed in a microscopic section of the sinus mucosa, may be classified in order of frequency as acute catarrhal, acute suppurative, chronic suppurative and hyperplastic. Like the histologic structure the pathologico-anatomic findings in the mucosa of the various sinuses are virtually the same.

Acute Catarrhal: The microscopic tissue changes as found in an acute catarrhal inflammatory reaction of the sinus mucosa are as follows: (1) Dilatation of blood vessels; (2) Widening of connective tissue spaces as results from edema; (3) Infiltration of tissue with lymphocytes and polymorphonuclear leucocytes. The mucous glands are unchanged, which is a distinctive feature of this type of inflammation. From intense edema the mucosa is greatly thickened and cilia becomes motionless. Frequently the edema around the sinus ostium closes the aperture and interferes with drainage; hence provides further tissue change. Eventually the edematous products pass by osmosis through the epithelial layer into the sinus cavity and becomes stagnant if drainage from the sinus is inadequate.

If, after a short time, the local reaction of inflammation overcomes or the individual perfects an immunity to the offending microorganism, retrogression may be expected. The edema subsides, tissue cells resume their normal relationship and cilia regain their motion. The lymphocytes and polymorphonuclear leukocytes ingest

the dead tissue cells and bacteria; which together are removed from the tissue via the lymphatics. Return to normal structure and physiologic function of the sinus mucosa, is usually complete after a few days.

Acute Suppurative: The acute suppurative type of inflammation of the sinus mucosa may begin primarily as such, frequently it results from an acute catarrhal process.

The microscopic picture is quite similar to that of the acute catarrhal type. Minute findings are as follows: (1) dilatation of blood vessels, (2) separation of tissue spaces as results from edema. This is less marked than in acute catarrhal inflammation. (3) Leukocytic infiltration, chiefly polymorphonuclear, of epithelial, tunica propria and periosteal layers, (4) desquamated patches of epithelium sometimes found. An inflammatory exudate, consisting of serum, exfoliated epithelium, erythrocytes, numerous polymorphonuclear leukocytes and bacteria, is found within the sinus cavity. After a time, varying from a few days to a few weeks, retrogression begins. While resolution of the active inflammatory process is clinically complete, the mucosa may not resume its normal histologic structure and physiologic function due to the patches of desquamated epithelium being replaced by the squamous or pavement types.

Hyperplastic: The hyperplastic type of inflammation of the sinus mucosa is designated as such because of the marked proliferation of connective tissue cells; hence it is essentially a chronic inflammation. It frequently develops from prolonged or repeated attacks of acute catarrhal inflammation. Less often it has its origin in an acute or chronic suppurative process.

A microscopic section shows the following pathologic, anatomic changes: (1) marked increase of fibrous connective tissue, causing a thickening of the mucosa as to frequently fill the sinus cavity; (2) dilatation of some blood vessels with atrophy of others; (3) widening of tissue spaces from edema; (4) leukocytic infiltration chiefly lymphocytes, and plasma cells, of all layers of the sinus mucosa; (5) distorted or destroyed mucous glands; (6) metaplasia of columnar ciliated epithelium into squamous and pavement types.

After the hyperplastic type of inflammation is once established, resolution with restitution to the normal mucosa never occurs; a slowly progressing inflammatory process, perhaps due to microorganisms of

low virulence, continues indefinitely until interrupted by appropriate treatment.

Chronic Suppurative: Chronic suppurative sinusitis has as its forerunner an acute suppurative or hyperplastic type of inflammation. After the acute suppurative type continues over a varying period of time, usually a few weeks, changes occur in the sinus mucosa which classify the process as chronic. The hyperplastic type, which is chronic, may change into the suppurative type with the advent of pus-producing microorganisms.

Microscopic findings in chronic suppurative sinusitis are as follows: (1) separation of tissue spaces; (2) distortion or destruction of mucous glands with frequent cyst-like formation; (3) dilatation and atrophy of blood vessels; (4) marked round cell infiltration, chiefly polymorphonuclears; (5) proliferation of connective tissue cells; (6) localized areas showing metamorphosis of ciliated into pavement and squamous epithelium. This type of inflammation involves the periosteal layers; hence the underlying bones often show areas of necrosis.

The sinus cavity contains an exudate consisting of serum, leukocytes, erythrocytes, desquamated epithelium and bacteria.

Resolution of the chronic suppurative process, with restitution of normal tissue never occurs, but continues as a low grade inflammation with frequent acute exacerbations concomitant with or following upper respiratory infections.

In some instances the pathologic changes, as occur in the types of inflammation mentioned above, are so intermixed and intermingled that differentiation from microscopic findings is difficult. A knowledge of the subjective symptoms, objective findings, clinical course and results of treatment is helpful for proper classification.

As a whole, the microscopic picture of an inflamed sinus mucosa shows destruction and repair proceeding simultaneously. Naturally the longer and more destructive the inflammation, the greater the repair; hence further departure from the normal histologic structure in chronic inflammation. Frequently the fibrous connective tissue proliferated in nature's efforts of repair becomes involved in the infective process; hence a still greater distortion of the normal anatomic structure.

PRACTICAL APPLICATION: It has been said that to "Institute proper treatment one must know pathology." This is very true

in diseases of the nasal accessory sinuses.

From the foregoing it is suggested that most sinus inflammation, i. e., acute suppurative, hyperplastic and chronic suppurative types often have their incipency in the acute catarrhal type. Hence it is obvious that treatment of the acute catarrhal type is of utmost importance. It is in this type that we may expect complete resolution. Remember that in acute rhinitis or common cold the true pathology is usually that of an acute rhino-sinusitis. If treatment of the common cold is neglected some of the more chronic types of sinusitis may develop which demand radical surgery for an amelioration of symptoms. In the chronic types let us be reminded that following radical surgery, while clinical cure may be complete, it is probable that restoration of normal anatomic structure and physiologic function never occurs.

DISCUSSION

Samuel Marks, Lexington: Dr. Weldon spoke early in his paper of the constant or at least very often presence of bacteria within the sinuses during normal respiratory function. The question arises as to what disarrangement of the so-called pathologic physiology takes place to enable these bacteria to exert their pathogenicity. Many observers think most of allergy. Jarvis, of Barre, Vermont, has gone so far as to put his patients on diets that meet their racial characteristics. For instance, the Nordic type, the fish eaters, he puts on fish; the Central European or the Alpine type he puts on meats, fruits and vegetables, while the Mediterranean type, who have access to all classes of foods, he gives a very generous diet of all foods.

Many observers have stressed climate, not so much the hot and cold as a steady habitat, but the sudden changes which seem to both increase the susceptibility of the individual and the virulence of the invading organism.

Colonel J. E. Ash, Curator of the Army Medical Museum, eminent pathologist, stresses, as Dr. Weldon has done, the very poor character of the sinus lining membrane. He describes it as being very thin, very poorly supplied with blood vessels, and poorly aerated, and he emphasizes the fact that an etiological classification would be of very great value. He is not a special pathologist; he is a general pathologist, and he classifies specimens taken from 150 cases from an etiological standpoint, as follows: infection, 75; allergic, 28; mixed, 47, these last being definitely allergic and infectious as well.

He further classifies the groups on a pathologic basis. For instance, 44 hyperplastic cases, 36 found to be infectious, one allergic, and seven mixed; 48 polypoid cases, 14 infectious, 20 aller-

gic, 24 mixed; 44 fibrous cases, 20 found infectious, 9 allergic, 15 mixed; 8 ulcerative cases, 6 infectious, 1 allergic, 1 mixed; 11 hemorrhagic cases, 8 infectious, none allergic, 3 mixed, and he describes 37 follicular nodules, 8 of which were infectious and 13 were mixed.

He speaks at great length on the follicular nodule and describes this development in three stages. He compares it to the nodules of vernal catarrh and trachoma. He first says there is a collection of lymphocytes about a blood vessel, which, as they develop gradually, so encroach on the blood vessel as to displace it, and, secondly, they become more organized and appear to resemble a normal lymphatic gland, finally very closely resembling a recent lymphatic gland, and he thinks that they have a germinal center which is responsible for their production.

Fenton and Semenoy of Los Angeles do not agree with him. They think that these nodules are collections of reticulo-endothelial cells having no germinal center, and they compare them as very similar to the small nodules we see so frequently in the pharynx. Once these nodules are produced they never disappear, even after the infection is cleared.

Ash demonstrates also very well in his hyperplastic cases, by serial sections in different stages, the gradual encroachment and building up of the fibrous tissue in the stroma, with eventually, just as Dr. Weldon has described, a loss of reticular cells, and gradually becoming a definite vascular fibrosis. Here he also shows marked loss of epithelium, often cysts, and sometimes abscesses, and the formation of pseudo-glands. From his very exact description Ash emphasizes the importance of an etiologic visualization of sinus pathology and the importance of every effort to arrest the causative factors of such pathology, and as Dr. Weldon states, a neglected cold is probably the most important factor.

W. A. Weldon, (in closing): I want to thank Dr. Marks for the discussion. I realize a paper like this perhaps is not so interesting to the men in general practice, but I feel that we cannot get away from the fact that the men in general practice who do general medicine see more cases of acute colds than the men who do special work, and I am glad Dr. Marks impressed that upon us. It is a thing that I tried to say, that if we in general practice would give a little more care to the prevention and treatment of colds, advise people a little better about how to prevent them, if possible, and about how to treat them, perhaps let them rest in bed, or whatever is necessary to get a patient over an acute cold (because most sinus diseases, excluding the allergic type, start from acute rhinitis and an acute cold neglected soon develops

into an acute sinusitis and the acute suppurative type perhaps will go into the chronic suppurative type and from there into the hyperplastic, perhaps) we would be doing all that we could to prevent and to cure the ordinary common cold which is so prevalent.

Remember, as I said before, that after it gets into the chronic sinusitis, it usually calls for some type of radical surgery, and while we feel we can cure those cases clinically, there is always an element of doubt and they are liable to recurrence. That is where the criticism comes so often from the nose and throat doctor, the fact that once a patient always a patient, because we frequently have heard it said that if you once have the sinuses operated on you have to continue to have that done throughout life. That is not a true statement, but it is like any other surgical procedure, it is hard to do completely and there is some element of truth in the fact that you do have recurrences. The time to treat sinus disease is when you begin to develop a bad cold, acute rhinitis, and then use whatever treatment is necessary to restore that patient to normal health.

DIAGNOSIS OF ACUTE SURGICAL CONDITIONS OF ABDOMEN IN CHILDREN

E. W. NORTHCUTT, M. D.

Covington

One of the first points for the surgeon who has been called to see a child suffering from acute abdominal pain to bear in mind is the fact that his patient is a child. Doing this he may at once dismiss from consideration a number of pathological conditions. Among these may be mentioned ectopic pregnancy, perforated peptic ulcer, gastric crises, ureteral stone or kidney stone and various carcinomatous lesions.

The lesions he must consider in order of their frequency are appendicitis, intussusception and streptococcic and pneumococcic peritonitis. Some of the less frequent lesions are volvulus, mesenteric lymphadenitis and inflammation of Meckel's diverticulum.

Appendicitis constitutes from 50 per cent to 90 per cent of acute surgical conditions of the abdomen in children. Although under five years of age appendicitis is less frequent than from five to twelve, the mortality in the former group is very high. The proportion of cases under six years will run about 20 per cent, the mortality

about 30 per cent.

The reasons that may be given for this high mortality are, first; delay on the part of the parents in calling a doctor; they are accustomed to the child crying from colic—so they do not consider it serious. Second; difficulty in getting good history and making a satisfactory examination. These children too often answer questions with a grunt or cry and resist any kind of examination. Third; the rapidity of the pathological process at this age in life. In children under six years of age 75 per cent or more of cases of acute appendicitis require drainage and about 50 per cent below twelve years of age require drainage.

In the examination of a child five minutes spent quietly watching him without touching or even talking to him is time well spent. While doing this a surgeon should note the following: Is he restless or is he quiet, reluctant to move? a restless child probably does not have peritonitis. Are his respirations rapid and of abdominal type? such respirations would suggest a pathological process above the diaphragm. Does he have paroxysms of apparently severe pain followed by a period of relative comfort? This would point to involvement of a hollow viscus, such as intussusception; constant pain would indicate an inflammatory lesion involving the peritoneum. Next in the examination should come the history; this should be obtained from the patient, the mother, playmates or anyone who may have been with him before and during his attack. These questions should be answered; previous general health—recent illness, such as scarlet fever—a recent attack of this would suggest possibility of suppurative mesenteric lymphadenitis—recent eating, too much importance should not be attached to this question. History of previous attacks—time and manner of onset of present attack, its nature and progress—has there been nausea, vomiting, diarrhea or constipation? has he had a laxative? Of course many other questions will suggest themselves and the surgeon should have the patience to listen to the whole story.

Up to this point the child has not been touched. The physical examination should now be started. The position in which the child seems most comfortable should be noted. It is often an advantage to examine him in this position because it may be done without disturbing him. He will likely prefer to lie on his back with legs and thighs flexed—this position gives the greatest relaxation to the psoas, iliacus

and anterior abdominal muscles. One should note the condition of skin, is it dry or moist? Is it pale or flushed? Are his eyes sunken and listless or are they bright and alert? Is the abdomen distended or scaphoid? Can intestinal peristalsis be seen? Some of these questions will have been answered in the time spent in observing the child.

In examination of the abdomen the surgeon should be sure, first that his hands are warm. The whole hand should be placed flat on the abdomen as gently as possible, and left there without movement until the child no longer notices its presence. Then very gentle palpation is begun: first on the side opposite that wherein the suspected lesion is located, passing slowly in the direction that will reach the lesion last; this in itself will often determine whether peritonitis is present.

Intussusception though not nearly as frequent as appendicitis accounts for approximately 5 per cent of acute surgical conditions of the abdomen in children between the ages of five and twelve. While in children under two years of age it accounts for over 50 per cent of acute abdominal conditions. The abdomen in this condition is soft except in paroxysms of pain. Occasionally palpation will bring on a paroxysm of pain and this will be misinterpreted as a rigid abdomen—therefore, this examination should frequently be interrupted and started again. It will often require patience and considerable time to gain any information by palpation. Occasionally one is able to palpate a mass. If this mass is located to the right of the midline the prognosis is much better than if it is located to the left of the midline because in the latter instance it means that the condition is much further advanced, that more damage has been done to the intestine, that operation will be more difficult and the mortality much higher. Rectal examination will sometime reveal a mass. This may be a good diagnostic point, but it is a very bad prognostic point. It has its analogue in the cachexia and palpable mass of late carcinoma of the intestinal tract, or in the stercoraceous vomiting of intestinal obstruction—valuable in diagnosis but too late. X-ray examination is often of value. First a flat plate should be made. If this does not give the desired information an enema of thin barium mixture should be given; this should be given slowly under low pressure and its progress watched under the fluoroscope. This procedure will sometimes free the intussusception. Time is a

vital factor in this condition; the mortality which may be as high as 50 per cent is due almost entirely to delay in surgical intervention.

Laboratory procedures in acute abdominal conditions in children must of course be carried out as indicated. X-ray examination of chest is important where pneumonia is a possibility. Examination of blood and urine should be done—the white cell count may be very high in either pneumonia or streptococcic peritonitis, usually only slightly elevated in intussusception. Generally speaking, laboratory procedures are of less value in acute abdominal conditions in children than in the adult. After the surgeon has carried out a complete examination including laboratory work, he should correlate his findings as carefully as possible. If he is still unable to arrive at a definite diagnosis, he should not hesitate to open the abdomen even at the risk of being in error. An occasional error with a live patient is better than a late positive diagnosis with a fatal outcome.

SQUINT, ITS ETIOLOGY AND TREATMENT

WILLIAM SNYDER, M. D.

Frankfort

It is not the purpose of this paper to go into an exhaustive study of squint. Eleven years ago I limited my work to Eye, Ear, Nose and Throat. During these eleven years I have become more and more convinced that few men who do general work understand the cardinal principles of the treatment of squint. Probably most patients go to their family physician when they first notice the condition. It is absolutely essential that correct information be given at this time, for it is only in early cases that really brilliant results can be attained.

Squint is a condition in which there is a manifest deviation of one eye from the line of vision. This deviation is always in one direction and remains of the same amount no matter in which direction the eyes are turned. The eye which is directed towards the subject is the "fixing eye," the other eye is the "deviating eye." Normal eyes are both directed towards the object looked at and remain in this position without any muscular effort. Many eyes which remain straight are straight only because they are held in place by excessive mus-

cular effort. Such eyes are cosmetically perfect, but due to the tendency to squint, require so much effort to hold them in place that the patient suffers from a definite asthenopia. These tendencies to squint can be demonstrated by many tests. In marked cases the condition may be demonstrated by the cover test. The patient fixes on a distant object and one eye is covered. If this eye has a tendency to squint it becomes manifest and the eye can be seen to cross.

An eye may deviate in any direction, though the lateral deviations are much more common than the vertical ones. Internal squint is the commonest form, though external squints are not infrequent. Vertical deviations are rare and are generally associated with some other form of deviation. In most cases one eye always remains straight and the other crosses, so-called monocular squint. Sometimes both eyes tend to squint. This tendency is manifest by first one eye crossing and then the other—alternating squint.

There can be no doubt but that hereditary influences are very important in the etiology of squint. The condition is seen in families as constantly as any other condition. As to whether the condition is always due to an hereditary shortening of one muscle and lengthening of the other, is of no import. Certainly there is a very definite relationship between the refractive error and squint. Accommodation and convergence are definitely related. If a patient has to accommodate excessively to see, he also tends to converge excessively. This constant tendency may well lead to the hypertrophy and shortening of the internal rectus muscle and to the partial atrophy and lengthening of the external rectus.

The diagnosis of squint is one of the simplest and easiest diagnoses one can make. The treatment is another thing. For the first few months of a child's life the eyes are not constantly held in line and squints during this period can generally be ignored. Most cases of true squint usually begin in the first two years of life and practically all of them start in the pre-school age. Many cases follow whooping cough, a debilitating disease or a fall. These things are never the cause of the condition but are only exciting causes for a latent condition.

Never under any circumstance tell the parents that the child will outgrow the condition. In the first place practically no case is spontaneously cured and secondly

valuable time is lost and a condition of the eye allowed to develop which may become incurable.

When an eye squints, three things happen to it: (1) It crosses; (2) The image which it focuses is suppressed and hence it ceases to function and (3) it develops amblyopia ex anopsia or amblyopia of disuse. Only one of these conditions is always amenable to treatment and even that not completely so. An eye can always be straightened by surgery. Fusion can be brought back to some extent by exercises, provided the child is young and especially if the child will go through a long and persistent period of training—which few of them will do. The longer the eye squints, the more difficult it is to bring back the fusion. Amblyopia ex anopsia behaves very much like fusion. If the child is over six years old, some of the amblyopia can be overcome, but rarely all of it.

By far the most important thing to remember in the treatment of squint is early diagnosis and early treatment. When it is definitely established that the patient has a squint, that is the time to start the treatment. But please don't tell the patient to see an "Eye Specialist." If you do so, in the majority of cases he will go to an optometrist who is not prepared by training or experience to care for these cases. I have seen many such cases which have been treated by the prescribing of glasses and, or, by exercises. In many of these cases the glasses were not correct and in most of them the exercises could never have any effect in these particular cases. Gentlemen, it is absolutely impossible to fit a child with a reasonable degree of accuracy without the use of drops. It makes no difference what methods or mechanical devices are used, it just can't be done. The patient should be examined by a man who will refract him under drops and who by training and experience knows whether the patient will respond best to glasses, exercises, surgery or to a combination of these.

Most cases of squint are seen in those cases which have a large refractive error. If such cases are seen early, glasses will probably cure the condition and restore the vision. If they are seen late, probably surgery will be necessary—to be followed with glasses and probably exercises. Early cases do not lose fusion and do not have amblyopia. If the refractive error is large, glasses must be worn following surgery, not necessarily to hold the eyes straight, but to enable the patient to see well and to prevent asthenopia.

Surgery of the extra-ocular muscles has now been developed to a very satisfactory degree. Children can be operated on under general anesthesia. Most operations should be done between the ages of two and five, i. e., at the age when the squint becomes well established. With the development of very small catgut and atraumatic needles, the muscles can be set at any point on the globe with an almost positive assurance that they will not slip. The sutures are absorbable and hence the only post-operative care necessary is the changing of the dressings. Since the operation is entirely outside of the globe of the eye, there is little danger of infection. Intra-ocular procedures are always fraught with many complications, but extra-ocular procedures heal particularly well, due to the good blood supply. I have yet to see a case about which I felt uneasy. About the worst that can be expected is that the procedure might have to be repeated. This can be done any number of times, but I have never had to do it more than twice on any patient.

SUMMARY

Squint is a condition in which the visual axes are not parallel. It is usually monocular, but may be alternating. The hereditary tendency in squint is very strong. The only known cause is excessive eye-strain. Where squint exists, there is a thickening and shortening of one muscle with a partial atrophy and lengthening of the other muscle. Treatment is confined to: (1) Glasses; (2) Muscle exercises and (3) Surgery or a combination of these. Proper treatment will always result in a good cosmetic result unless one or more muscles be paralyzed. Early diagnosis and proper treatment should not only result in a good cosmetic result, but fusion and good vision should be retained.

Vaccine Prophylaxis of Pertussis. Prophylaxis of whooping cough with phase 1 pertussis vaccine seems to be effective in reducing the chances for contracting the disease when carried out four months before exposure. F. S. Lansdown (Arch. Pediat. 56:655, 1939) presents in tabular form, a summary of some of the significant studies on pertussis immunization. While lack of uniformity in the work of various investigators makes comparison of data difficult one feature stands out in bold relief. There is a consistent advantage of vaccinated groups over unvaccinated groups with respect to development of pertussis in exposed cases.

THE TREATMENT OF PNEUMONIA

J. MURRAY KINSMAN, M. D.

Louisville

When one talks today about the treatment of pneumonia one is referring to the specific treatment, for oxygen therapy and other supportive measures are so well standardized that further discussion of them is superfluous. This is especially true since with the chemotherapy of today, supportive treatment is necessary for only a short period of time and has been relegated, therefore, to a position of secondary importance.

The first great advance in the specific therapy of pneumonia was made a few years ago when pneumococcus typing became more refined and, when simultaneously, serum became available not only for types I and II but for practically all the other types as well. Serum treatment greatly lowered the mortality rate of pneumonia but a still greater lowering followed the advent of sulfapyridine.

Sulfapyridine became available to the profession at large in the late summer of 1939. Previous to that time, however, it had been investigated clinically in many medical centers in the country. At the University of Louisville we had been using it since January 1, 1939. In the first 103 cases in which it was used, we had six deaths, a mortality rate of less than 6 per cent. After this, we had a series of deaths, however, so that our mortality rate was raised somewhat. The figures for the entire season have not been analyzed but it is probable that the mortality rate for the entire year of 1939 was in the neighborhood of 8 or 9 per cent. This is in keeping with figures reported from other clinics in different parts of the country so that for the country as a whole, it is probably correct to say that the general mortality rate with sulfapyridine lies somewhere between 6 and 10 per cent.

Everyone here is undoubtedly thoroughly familiar with the method of administration of sulfapyridine. You are also familiar with its drawbacks. The great disadvantage to its use is the fact that nausea and vomiting occur so frequently and with such severity. This constitutes, at times, a very real objection. After sulfapyridine itself, was well on the way to being a standard form of treatment, its sodium salt was developed. This salt is very soluble and can be given intravenously. In this

Read before the Nelson County Medical Society, Bardstown.

way, it became possible to give the drug effectively to patients who were so nauseated that they could no longer take the drug by mouth. At the Louisville City Hospital we began using the drug by rectum and it seemed strange to us that this was not done pretty generally throughout the country although apparently it was not. As a matter of fact, when sodium sulfapyridine is given by rectum, the concentration in the blood stream rises rapidly and to a much higher point than when sulfapyridine is given by mouth. Our clinical results with the rectal administration have been as good as when sulfapyridine itself has been used orally.

The drug has to be made up in distilled water for any salt will precipitate it and render it inert. Consequently, it cannot be given in normal saline. We make up a 5 per cent solution of sodium sulfapyridine in distilled water and give 1.2 cc. per pound of body weight, per rectum, the rectum having previously been cleansed by enema. When possible blood concentrations should be done to determine the frequency and size of doses. When not possible, repeating this dose every four hours will bring the blood concentration up to the desired level in the majority of cases. We have even had instances where the blood level has been raised far above the desired figures. As soon as possible, sulfapyridine may then be continued by mouth but if this becomes impractical, then the sodium salt can be continued by rectum at less frequent intervals.

Several months ago another derivative of sulfanilamide was introduced. This was sulfathiazol. Experience in clinics throughout the country where it has been used more and more confirm the impression that it is equal to sulfapyridine in its effect on pneumonia. At the Louisville City Hospital we have given it so far to 33 patients with lobar pneumonia—not all of which were caused by the pneumococcus. One patient died—an old man with advanced heart disease who was practically moribund on admission and who died four hours later. The remaining 32 patients recovered. These included a child one year old and an old man 84 years old. The mortality rate for this series is 3 per cent although, of course, the series is small. Our experience for broncho-pneumonia has not been quite so satisfactory, although the patients who died with broncho-pneumonia also had certain other complications which, in themselves, probably caused death, such as barbitol poisoning and dia-

betic coma. On the basis of this experience, we feel, therefore, that sulfathiazol is probably equally as effective as sulfapyridine.

One other important feature of sulfathiazol makes it preferable to sulfapyridine for general use. Whereas sulfapyridine caused nausea and vomiting in from two-thirds to three-quarters of the cases, sulfathiazol on the other hand, rarely caused vomiting and caused nausea in only a small percentage of cases. This is the reason we believe that sulfathiazol is definitely the drug of choice in the treatment of pneumonia.

Certain definite toxic effects have been observed from sulfathiazol, however. These take the form of skin and mucous membrane lesions. An erythematous eruption has been noted occasionally and we have also encountered intense congestion and injection of the conjunctiva and sclera, especially, for some queer reason, of the lateral part of the eye. These manifestations clear up when the drug is discontinued. We have encountered no other definite toxic effects except in one or two instances we have noted mild dizziness and light-headedness which may or may not have been due to the drug. Apparently effects on the blood are quite rare although one or two instances of agranulocytosis have already been reported but from the experience to date, it appears that sulfathiazol has a less harmful effect on the blood than either sulfanilamide or sulfapyridine.

The dose recommended by the manufacturer is an initial dose of 4 grams (60 grains) followed by 1 gram (15 grains) every four hours day and night. We, however, used exclusively an initial dose of 2 grams (30 grains) followed by 1 gram (15 grains) every four hours and most of our 32 recovered cases were given exactly that dose, though some of the more severely ill ones were given one gram every two hours. Therefore, it seems to us unnecessary to give the larger initial dose. Moreover, blood concentrations have shown that the blood concentration from 2 grams of sulfathiazol is higher than from either 2 or 4 grams of sulfapyridine.

The sodium salt of sulfathiazol is now being distributed to medical centers for investigation. Presumably it will act as did the sodium sulfapyridine, and it is probable that it will be effective when given by rectum as well as intravenously. Although we have been promised a supply for the University of Louisville we have not yet had an opportunity to study this but probably will do so this fall.

BOOK REVIEWS

CLINICAL PARASITOLOGY—By Charles Franklin Craig, M. D., M. A. (Hon.) F.A.C.S., F.A.C.P., Col. U.S. Army, (Retired), D.S.M. Emeritus Professor of Tropical Medicine in The Tulane University of Louisiana, New Orleans, Louisiana, and Ernest Carroll Faust, M. A., Ph. D., Professor of Parasitology in the Department of Tropical Medicine, The Tulane University of Louisiana, New Orleans, Louisiana. Second Edition, thoroughly revised, published 1940. Octavo 772 pages, illustrated with 244 engravings. Buckram, \$8.50 net. Lea & Febiger, Publishers, Philadelphia, Pa. Price \$8.50.

In the preparation of the second edition of this work, the text has been thoroughly revised and expanded to include the important recent contributions in this field. These changes have added greatly to the usefulness of the volume both as a text for medical students and as a reference book for physicians.

Animal parasites provide such serious clinical and public health problems that they cannot be ignored. The work presents in concise form the essential facts concerning the parasites, the symptoms caused by their presence and the important methods of diagnosis, treatment and the control of the diseases which they produce. The reports of local and state authorities furnish continued evidence of the increasing importance of these parasites as etiological agents of human disease and the necessity for their control. This volume has been designed to meet such a need.

An appendix describes the various technics for collection, preparation and identification. The bibliography is unusually extensive and there is an index of authors as well as of subjects. The authors are authorities in their respective fields, in which they are internationally recognized. They cover the theoretical and practical problems in such a way as to make their work of equal value to practicing physicians, to students of medicine, and to graduate and undergraduate students in parasitology.

SYNOPSIS OF THE PRINCIPLES OF SURGERY. — By Jacob K. Berman, A. B., M. D., F.A.C.S., Assistant Professor of Surgery, Indiana University of Medicine, Indianapolis, with 274 illustrations. C. V. Mosby, St. Louis, Publishers.

This small concise book was written with the idea of correlating the basic sciences with the fundamental principles of surgery. The discussions of the various topics are brief, authoritative and amply illustrated to further emphasize facts. It is a splendid handbook for the medical student as well as the surgeon.

CANCER IN CHILDHOOD AND A DISCUSSION OF CERTAIN BENIGN TUMOR.—Edited by Harold W. Dargeon, M. D., F.A.C.P., Assistant Pediatrician, Memorial Hospital for Cancer and Allied Diseases, New York; Associate Pediatrician, St. Luke's Hospital, New York Foundling Hospital; Instructor in Pediatrics, College of Physicians and Surgeons, Columbia. Illustrated. The C. V. Mosby Company, St. Louis, Publishers.

Although there has been a steady decrease in the incidence of many children's diseases, the exact trend of cancer in childhood is not known, but as far as can be learned from published statistics it appears the death rate has increased.

It is a well-known fact that cancer knows no age limit and that it may be present at birth, yet the general impression is that cancer is a disease of middle or old age, consequently there have been few studies and no extensive research into the problem of cancer in infancy. The purpose of this volume is to emphasize childhood cancer. It is the combined work of the author and his collaborators and is very timely and important.

GETTING READY TO BE A MOTHER.—By Carolyn C. Van Blarcom, R. N., Revised by Hazel Corbin, R. N. General Director Maternity Center Association, World Fair, New York.

This is a very valuable volume for the expectant mother and its contents are gleaned from the wide experience of the Author while serving as director of the Maternity Center at the New York World's Fair. It is very interestingly written and effectively illustrated; photographs of a series of life size plaster sculptures showing the baby's development from conception to birth and the return of the uterus to normal size and position after birth. The MacMillan Company, Publishers, 60 Fifth Avenue, New York. Price, \$2.50.

THE INJURED BACK AND ITS TREATMENT—Edited by John D. Ellis, M. D., with eight contributors of national reputation. Charles C. Thomas, Publishers, Springfield, Illinois and Baltimore, Maryland, Publishers. Price, \$5.50, postpaid.

The scope and purpose of this splendid volume is to present the viewpoints and practices of the foremost authorities on this subject.

The technic of some of the recently introduced diagnostic procedures upon which the nature of this pain producing lesion can be determined, is made clear and the indications for various modes of treatment are given.

The internist as well as the practicing surgeon can profit by reading this book.

MANAGEMENT OF THE CARDIAC PATIENT.—By William G. Leaman, Jr., M. D., F.A.C.P. Assistant Professor of Medicine in Charge of the Department of Cardiology, Woman's Medical College of Pennsylvania, Philadelphia, Cardiologist, Woman's College, Memorial, Northeastern Hospitals and Philadelphia Hospital For Contagious Diseases, Consulting Cardiologist, St. Luke's and Children's Hospital, Philadelphia, Assistant Visiting Physician, Philadelphia General Hospital, Chairman, Committee on Diseases of the Heart and Circulation, Philadelphia County Medical Association, Fellow College of Physicians of Philadelphia. 235 original illustrations, two of which are in color. J. B. Lippincott Company, Publishers, Philadelphia, Montreal, London. Price, \$6.50.

This volume has assembled the most important facts that are essential in the management of the cardiac patient. Physical and laboratory methods of examination that aid in the diagnosis are described and evaluated. Emphasis has been placed on the present-day recognition of the importance of classifying and treating heart disease according to its etiology and the functional capacity of the patient rather than in the light of structural defect.

Rapid strides in electrocardiology, roentgenology, and blood chemistry in the diagnosis and prognosis of heart disease have been made. To the practitioner who has not the equipments available the author meets the problem by outlining the diagnosis and treatment of such a large number of cases that the busy practitioner can recognize and treat intelligently the average run of cardio-vascular problems.

PHYSICAL DIAGNOSIS. — By Ralph H. Major, M. D., Professor of Medicine in the University of Kansas. Second Edition., Revised. 464 pages with 437 illustrations. Philadelphia and London. W. B. Saunders Company, 1940. Cloth, \$5.00.

This new second edition has been completely revised and brought strictly up to date.

The sections relating to the abdomen, genitalia and the extremities have been enlarged. The chapters on the examination of the nervous system have been rearranged and rewritten. Many new illustrations have been added.

The principle methods of physical examination, inspection, palpation, percussion, auscultation and their application in diagnosing disease are given adequate attention.

There is an excellent chapter on local and referred pain and another on history taking. Both medical students and general practitioners will find this an excellent book.

THE PRACTICE OF MEDICINE.—By Jonathan Campbell Meakins, M. D., LL. D., Professor of Medicine and Director of the Department of Medicine, McGill University; Physician in Chief, Royal Victoria Hospital, Montreal; Formerly Professor of Therapeutics and Clinical Medicine, University of Edinburgh. Fellow of the Royal Society of Edinburgh; Fellow of the Royal Society of Canada; Fellow of the Royal College of Physicians, London; Fellow of the Royal College of Physicians, Edinburgh; Honorary Fellow of the Royal College of Physicians, Edinburgh; Honorary Fellow of the Royal College of Surgeons, Edinburgh; Fellow of the Royal College of Physicians, Canada; Fellow of the American College of Physicians. Third Edition, with 562 illustrations including 48 in color. The C. V. Mosby Company, St. Louis, Publishers. Price \$10.00.

This new edition is printed on green-tint eye ease paper, relieving the eye of strain and fatigue. To our knowledge this is the first medical book to take this precaution for helping relieve eye strain. It is profusely illustrated, being the first book on medical practice to make this innovation. Five hundred and sixty-two are included, forty-eight of which are in colors.

This book is built upon the belief that it is best to approach the study of disease from the standpoint of physiological disturbance, rather than from that of pathological anatomy. It is the experience of a widely known clinician and teacher. Its popularity grows daily with practicing physicians, teachers and medical students.

METHODS FOR DIAGNOSTIC BACTERIOLOGY — A complete guide for isolation and identification of pathogenic bacteria for medical bacteriologic laboratories. By Isabelle G. Schaub, A. R., Assistant in Bacteriology, Department of Pathology and Bacteriology. The Johns Hopkins University School of Medicine and M. Kathleen Foley, A. B., Bacteriologist in Charge of the Diagnostic Bacteriological Laboratory of the Medical Clinic, The Johns Hopkins Hospital, Baltimore. The C. V. Mosby Company, St. Louis, Publishers. Price, \$3.00.

This book is a manual of methods used in the biological laboratories at Johns Hopkins for teaching purposes.

Complete directions are given for handling cultures, clinical and autopsy materials, including direct smears, making plates, choice of media, incubation and animal inoculation. Methods of serological studies are given in adequate detail. Several chapters are devoted to the preparation of culture media, stains and other microscopic preparations.

A TEXTBOOK OF MEDICINE (By American Authors): Edited by Russell L. Cecil, A. B., M. D., Sc. D. Professor of Clinical Medicine, Cornell University Medical College; Associate Attending Physician, New York and Bellevue Hospitals, New York City. Associate Editor for Diseases of the Nervous System: Foster Kennedy, M. D., F.R.S.E. Professor of Clinical Neurology, Cornell University Medical College; Attending Physician, New York Hospital; Visiting Physician in Charge, Neurological Service, Bellevue Hospital; Consulting Physician, New York Neurological Institute. Fifth Edition, Revised and Entirely Reset. 1744 pages with 173 illustrations. Philadelphia and London. W. B. Saunders Company, 1940. Cloth, \$9.50.

This new fifth edition contains the contributions of 144 American authors under the editorial guidance of Dr. Russell L. Cecil and has been thoroughly revised.

Each article has been carefully edited and brought up to date and many new articles have been added. Special attention has been given to treatment with a description of the use of many new drugs, serums, vaccines and detailed instructions regarding their use.

SYNOPSIS OF MATERIA MEDICA, TOXICOLOGY AND PHARMACOLOGY FOR STUDENTS AND PRACTITIONERS OF MEDICINE.—By Forrest Ramon Davidson, B. A., M. Sc., M. D., Assistant Professor of Pharmacology in the School of Medicine, University of Arkansas, Little Rock. With 45 illustrations including four in color. The C. V. Mosby Company, Publishers, St. Louis. Price \$5.00.

In this condensed volume pharmacology is presented as an applied subject as it should be taught in the clinic and class-room. The role of drugs in the treatment of diseases is illustrated by a large number of prescriptions of merit which are included in the text. Full instructions are given for the correct method of writing prescriptions. It is a splendid reference book for the busy practitioner.

OBSTETRICS IN GENERAL PRACTICE.—By J. P. Greenhill, B. S., M. D., F.A.C.S., Professor of Obstetrics and Gynecology, Loyola University Medical School, Chicago; Professor of Gynecology, Cook County Graduate School of Medicine; Attending Gynecologist, Cook County Hospital; Co-Editor of the Year Book of Obstetrics and Gynecology; Author of Office Gynecology. The Year Book Publishers, Inc., Chicago, Illinois, Price \$3.50

Seventy definite therapeutic procedures are presented in full detail; medical, surgical and physiotherapeutic measures for common obstetrical conditions. Seventy-nine specific diagnostic procedures are given, ranging from dif-

ferential diagnosis to abortion and placenta praevia to etiologic differentiation of postpartum hemorrhage. Special chapters on obstetric endocrinology, local infiltration, anesthesia, Abortion and Miscarriage, Roentgenography in Obstetrics, for instance, are replete with invaluable suggestions on problems that are encountered in everyday practice. Because this is a book on practical obstetrics, every page is packed with clear, terse directions on how to handle the complications that arise most often in ante and postpartum care and management of delivery; thirteen signs and symptoms which may be forerunners of trouble in pregnancy; five causes of postpartum hemorrhages; check list of dosage of sulfanilamide for various obstetric conditions; complete list of material to outfit an obstetrical bag; thirteen obstetric conditions in which pituitary extract is of value.

CANCER OF THE LARYNX.—By Chevalier Jackson, M. D., Sc. D., LL. D., F.A.C.S., Honorary Professor of Broncho-Esophagology and Consultant in Broncho-Esophagologic Research, Temple University Medical School, Philadelphia, and Chevalier L. Jackson, A. B., M. D., M. Sc. (Med.), F.A.C.S., Professor of Broncho-Esophagology, Temple University Medical School, Philadelphia. 309 pages, 189 illustrated on 116 figures, and 5 plates in color, containing 50 illustrations. The W. B. Saunders Company, Philadelphia and London, Publishers. Price \$8.00.

This excellent monograph on cancer of the larynx will probably be one of the classics of medical literature. It is unfortunate that it deals with such a highly specialized branch of surgery. This will necessarily limit its usefulness to those especially trained in this type of work. The arrangement is unique. One part is devoted to procedures for those requiring quickly available practical procedures, another part to practical considerations for those wishing rather general clinical information, and a third part to historical notes for those interested in the development of the knowledge of the disease. The illustrations and colored plates are excellent. Description of technique is most thorough. The book is made readable by the human viewpoint maintained and by the coinage of unusually expressive phrases. Opinions expressed are based upon an enviable experience in the care of vast numbers of cases of this disease. Of interest to all are the emphasis upon persistent hoarseness as a symptom of cancer of the larynx, the importance of a biopsy, the high percentage of curability obtainable in early cases, the production of articulate speech without a larynx, and the possibilities for satisfactory social adjustment by that limited group requiring laryngectomy. The bibliography is as complete as the remainder of the book.

COUNTY SOCIETY REPORTS

Rockcastle: The Rockcastle County Medical Society has held regular meetings at the Dixie Boone Hotel, Mt. Vernon, on the following dates at 6:30 p. m. The program is listed with the date.

September 6, 1940: W. E. McWilliam, Brodhead, "Hemorrhage." Discussion by members present.

October 4, 1940: Walter Pennington, London, Pennington Hospital, Subject, Appendicitis.

November 8, 1940: N. M. Garrett, Brodhead, Anesthesia: General and Local.

Since the last report from this society several of the members have attended the District meeting at Somerset, the Kentucky State Medical meeting at Lexington, and the Southern Medical meeting in Louisville. The consensus of opinion is that they have all been of superb quality and of tremendous help to the general practitioner. Several of the members are already looking forward to the next state meeting in Louisville.

This small society is also looking forward to our next meeting locally when we expect a guest speaker to be announced. At this meeting we are scheduled to have a re-election of officers, a discussion of the Kentucky Premarital Law, and medical economics.

Dr. Walker Owens, Health Officer, has been able to attend the last two meetings and has presided.

LEE CHESTNUT, Secretary.

Jefferson: The Jefferson County Medical Society held its monthly meeting in November at the Louisville City Hospital, as usual. The business session began at 7:45 P. M. and the Scientific program at 8:15 P. M. The following papers were read: November 4th: Subphrenic Abscess, Case Reports, Diagnosis and Treatment, C. M. Bernhard; Treatment of Paresis in the Home, Louis M. Foltz; Traffic Elbow, Charles F. Wood. November 18th; Case Report: The Treatment of Carriers of the Typhoid-paratyphoid Group, Max L. Garon; Lymphatic Leukemia, Marion F. Beard, and Leg Ulcers, Horace H. Seay.

Physicians in Jefferson County as well as the state are reminded that the Medical Library is open every day during the week from 8 A. M. to 9 P. M. through Friday, and on Saturday from 8:30 A. M. to 5 P. M.

Dr. Hugh R. Leavell, Director of Health of Louisville Health Department, made the following report: The incidence of gonorrhea is higher in Louisville this year than last. With the expansion of Fort Knox and Bowman Field, the problem of the venereal diseases is becoming more acute. To combat this problem it will take the combined efforts of the physicians, drug-

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NEXT MEETING LOUISVILLE

gists and the Health Department. A beginning has been made, in that a list of these physicians who treat syphilis and gonorrhea and who have been reporting cases to the Health Department will be placed in the hands of the druggists in Louisville. This is being done to counteract drug store prescribing so that the druggists may direct those persons coming to them regarding venereal diseases into the proper channel for advice. Representatives of the Drug Association have stated that they will put this plan into effect. So far seventy-five physicians have responded to the questionnaires on whether or not they will treat syphilis and gonorrhea.

The program for December is as follows: December 2: Guest Speaker, Lewis L. Moorman, Oklahoma City, Subject: Tuberculosis and Genius, this lecture being given under the auspices of the Louisville Tuberculosis Association.

December 16: Treatment of Pneumonia (Colored Film) E. E. Schmidt, Chicago, guest speaker. Syphilis Control in Louisville, Gracie R. Rowntree; Symptomatology of Intracranial Tumors (Case reports and lantern slides), Franklin Jelsma.

The society regrets to report the deaths of the following members: Louis W. Eckles, on October 29; Samuel S. Foss, on October 5th and John K. Freeman on November 6th.

W. B. TROUTMAN, Secretary.

NEWS ITEMS

Dr. John King Freeman, 73, of 2104 W. Broadway, a physician and surgeon in Louisville for forty-three years, died at 2:45 a. m., Wednesday, November 6.

In ill health several years, Dr. Freeman was formerly a member of the faculty of the University of Louisville School of Medicine for twelve years, and a staff surgeon at SS. Mary and Elizabeth Hospital for eighteen years. He retired in 1937.

He was formerly a member of the visiting staff of the City Hospital, and was a past president of the Jefferson County Medical Society.

A native of Eminence, and a graduate of the University of Louisville's medical school, he was a surgeon with the rank of captain with the First Kentucky Volunteers in the Spanish-American War, and a captain in the medical corps during the World War. He later held the rank of major in the Medical Reserve.

He was a member of the Jefferson Post, American Legion and the Spanish-American War Veterans.

Irvin Abell, E. L. Henderson, A. T. McCormack and J. B. Lukins, Louisville, were guests of honor at a banquet at the meeting of the Indiana State Medical Association at French Lick Springs, Indiana, October 30th.

The Department of Obstetrics and Gynecology of the University of Chicago and the Chicago Lying-in Hospital through the cooperation of the Children's Bureau, U. S. Department of Labor and the Illinois State Department of Public Health offers 5 postgraduate courses of 4 weeks each between January 6 and June 10. The beginning dates are: January 6, February 12, March 17, April 21, and May 26. All the members of the department and all services and units of the institution participate in the instruction. Only a limited number of post-graduate students are accepted for each period. A deposit of \$25.00 is required, of which \$10.00 is returned upon completion of the course. All communications should be addressed to: Post-graduate Course, 5848 Drexel Avenue, Chicago, Illinois.

It may interest you to know that the five post-graduate courses offered here since April, 1940 have been well received and were apparently quite successful.

The Annual Number of the Mississippi Valley Medical Journal will be called the Radium Number. It will follow the same general plan as in previous years. Short papers on any phase of radium therapy, of practical interest to the general practitioner or general surgeon, are requested for publication in this issue. They must reach the editor, Harold Swanberg, M. D., 209-224 W. C. U. Building, Quincy, Illinois, not later than February 20, 1941. This annual number enjoys a wide circulation containing as it does articles by many of this country's leading radium therapists. Several thousand extra copies will be printed.

The Academy of Ophthalmology and Otolaryngology met in Cleveland, October 6 to 10th, and elected Dr. Ralph Irvin Lloyd, of Brooklyn, as President. This meeting was attended by many of the leading Ophthalmologists in Kentucky.

The Academy sponsored the first Pan American Congress of Ophthalmology, which was organized on a permanent basis, with Dr. Harry S. Gradle, of Chicago, as president. They plan to have a meeting in Montevideo, Uruguay, in 1943. These Pan American Medical Society meetings are very interesting, and you would be fortunate to be able to attend.

Owen Carroll, New Castle, for many years part-time county health officer of Henry County, and Secretary of the Henry County Medical Society and also Secretary of the Fifth Councilor District, was married October 26th to Miss Elizabeth G. S. Thomas, Secretary to A. T. McCormack.

KENTUCKY MEDICAL JOURNAL—PART II
WOMAN'S AUXILIARY SECTION

Medical School Library

JAN 18 1940

University of California



GOOD CHEER

GOOD CHEER

GOOD CHEER

GOOD CHEER

JANUARY, 1940



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Throughout Kentucky our products have been used in various campaigns to prevent disease, under the competent leadership of the State and County Health Departments.

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All school children should be protected against these three diseases before they enter school in the fall.

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KENTUCKY MEDICAL JOURNAL—PART II

WOMAN'S AUXILIARY SECTION

Published Quarterly Under the Supervision of the Advisory Council

Vol. IX, No. 1

Bowling Green, Kentucky

January, 1940

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Life is a school. The world is neither a prison, nor a palace of ease, nor an amphitheatre for games and spectacles, but a place for instruction and discipline. Life is given for moral and spiritual training, and the entire course of the great school of life is an education for virtue, happiness and a future existence.

—Albert Pike.

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PRESIDENT'S MESSAGE

Mrs. R. T. Layman, Elizabethtown

May I wish every one of you a Happy New Year?

The old year with its joys and sorrows, has passed into history. We find that in spite of discouragements, we have won many victories and we enter the New Year with renewed energy, and plan for greater things, during 1940.

We may first give thanks for being at peace with the rest of the world. We have many blessings and much to work for.

Since health education is one of our most important tasks, let us not miss an opportunity to help educate the public on health measures, such as preventive medicine and sanitation. Let us do our part in making our dear U. S. A. a better and healthier place in which to live.

Will each County President help her County with Health Programs? In the Women's Clubs, P. T. A., Church Circles and other organized groups there are many ways we can be of public service.

I am happy to know Calloway County Auxiliary has reorganized, and feel sure they will enter the Blue Ribbon contest. See October issue of the Quarterly, page 113, Achievement Project-County Auxiliary Development. This is our program for the year. Also remember to help our State Chairmen in their work — such as Hygeia, Historian, Jane Todd Crawford, Cancer Control, Doctor's Shop, Tuberculosis, Radio, Public Relations, Contributions to Quarterly, Business and Advertising Managers.

We hope soon to hear from the Counties that activities have begun, with each member doing her bit, no matter how little her bit may be.

Your suggestion for improving our work will be appreciated.

The Mid-year Executive Board Meeting will be held Thursday morning, January 18, at the Brown Hotel, Louisville, at 10:00 A. M. All State Officers and Chairmen and all Presidents of County and District Auxiliaries are expected to attend.

Doctor's Day this year will be observed in honor of Dr. George Hart, the first practicing physician in Kentucky.

-:- EDITORIALS -:-

A NEW YEAR'S RESOLUTION

This New Year's Resolution is one reaffirmed each year by one of our own Auxiliary members. This year when we should all hold firm to our best convictions and keep tight rein on our emotions, its content might interest other readers:

I can and I will. I can and I will conquer my heedlessness, restlessness, my heartbreaking anxiety, the disposition to talk of myself, the foolish desire to help those whom God evidently intends shall help themselves. I can and will put a curb on all foolish emotions. I can and I will hold my tongue, and I can and I will become a discreet server to humanity.

TO SAVE THE YOUTH OF THE WORLD

A Pledge For Peace

I do affirm that: I will respect all men equally—regardless of race or creed.

I will not allow myself to be caught in the snare of any idea, ism or ology that is harmful to another.

I will regard all men as God's children, with equal rights as to their development and pursuit of happiness.

I will not frustrate the progress, or well being of any single soul; nor countenance a prejudice against any race of people.

I will not hate or malign any person because of religious or racial differences.

I will oppose—as detrimental to our civilization, the introduction of ideologies into this country which contain a philosophy of force.

I will not despise anyone whether he be poor, unfortunate or mistaken, and will support any group to gain equal rights with their fellow-men, providing that they follow the American form of Government.

I will defend the United States if called upon to do so—not, however, in the spirit of hatefulness or vengeance; but to protect the ideals of our American civilization.

I will actively promote love, nobility of action and brotherhood as a basis for the proper relationship between men and nations throughout the world.

I will not meet harmfulness with reprisals, but will endeavor to lead my adversary into the ways of truth and loving kindness.

Published by the Fine Arts Society of Jacksonville, 850 North Shore Drive, Jacksonville, Florida.

We strive—and so must you—to influence public opinion against hatefulness.

FRACTURED HIP BETE NOIR REMOVED

Every one, perhaps has agonized over the suffering of some aged relative or friend who has experienced the great calamity of fractured hip. It is needless to enumerate the many painful trials to secure comfort or the harrowing attempts to use the bed pan. We are all aware of these sad occurrences in the past methods of treatment.

But now, thanks to the ingenuity of one of our own Kentucky surgeons, Dr. George A. Hendon, whose modern method we learn about on page 7, we may enjoy a comforting sense of security in his sane, sensible, simple method.

The terrors suffered by past generations of victims of this affliction are removed when the simple, but exact, technique he has devised is strictly, or scientifically, followed. Like Salvation and like vaccination against smallpox, the right way is the only way. Modifications, to date, and superfluous frills and furbelows hinder, instead of help, the patient's recovery, according to reliable authority.

Medical Economics is still a vital topic in all medical circles. Read Dr. J. Duffy Hancock's address, page 12, and rejoice that Kentucky has clear thinkers like him and his associates who consider carefully the needs of all our citizens, rural and urban, and thoughtfully guide our State Medical Association through these days of misunderstanding prevalent in many sections of our country.

THE SOUTHERN

Traditional Southern hospitality and cordiality made the Memphis meeting of the Southern Medical Association Auxiliary held November 21-24, 1939, one of the most enjoyable in its history.

Everything possible was done for our entertainment and comfort. The Presidential Reception, luncheons, drives and dinner, given for the women while the Doctors attended Alumni Dinners, were much enjoyed by the large crowds. Mrs. Charles P. Corn, Greenville, South Carolina, was installed as President, and Mrs. M. Pinson Neal, Columbia, Missouri, was elected President-Elect.

Kentucky was well represented, with a native son, Dr. A. T. McCormack, installed as President of the Association and another Kentuckian, Dr. Irvin Abell, as guest speaker at a meeting open to the public. There were eleven Kentucky women to answer the Roll Call of States at one of the business meetings of the Auxiliary.

And, then, the climax of the whole meeting was the selection of Louisville as the next meeting place. So that next November 12-15, Louisville and Kentucky will be hosts to the second largest Medical organization in the United States, the Southern Medical Association.

Grace Stroud.

A GRACIOUS AND WELCOME GUEST

Unfortunately, Mrs. W. K. West, Oklahoma City, President of the Southern Medical Auxiliary during the 1938-1939 year, was unable to attend our Annual State Meeting in Bowling Green last September. But, fortunately, she did manage to stop over in Louisville, Monday night, October 1st, when an informal dinner honoring Mrs. West was held at the Pendennis Club by Officers of the Southern Medical Association: Dr. Elmer Henderson, Councilor; Dr. Irvin Abell, Trustee; Dr. A. T. McCormack, President-elect. Present were: Dr. Irvin Abell and Dr. Irvin Abell, Jr., Dr. and Mrs. Bernard Asman, Dr. and Mrs. J. Duffy Hancock, Dr. and Mrs. E. Lee Heflin, Dr. and Mrs. E. L. Henderson, Dr. and Mrs. R. T. Hudson, Dr. and Mrs. J. B. Lukins, Dr. and Mrs. A. C. McCarty, Dr. and Mrs. A. T. McCormack, Dr. and Mrs. S. C. McCoy, Dr. and Mrs. Oscar O. Miller, Dr. and Mrs. Frank Stites, Miss Grace Stroud and Dr. J. B. Stroud.

Mrs. West delighted the group with her charming address in which she highly complimented the State Medical Association and the Auxiliary for their pioneer venture in the publication of The Quarterly, the Woman's Auxiliary Section or supplement to the Kentucky Medical Journal. Others who responded to the call of the toastmaster, Dr. Henderson, before their attendance at the Jefferson County Medical meeting, were: Drs. Abell, McCormack and Miller.

On the following morning, Mrs. West visited the Filson Club with Mrs. McCoy, Custodian of Records for the Southern Medical Auxiliary, and Mrs. McCormack, to inspect the safety box which has complete records of the organization from its first meeting in New Orleans, in 1924.

At noon, the Jefferson County Auxiliary, Mrs. P. E. Blackerby, President, entertained with a delightful luncheon at Canary Cottage. Before rushing off to her train, Mrs. West graciously expressed her gratitude to the Auxiliary and praised the Jane Todd Crawford project in which she has been interested since she entered the Auxiliary and which she has promoted in the Southern Medical Auxiliary. We hope this is but the first of many visits Mrs. West will pay the Kentucky Medical groups.

NATIONAL SOCIAL HYGIENE DAY

February 1, 1940

Preparations are already well under way for celebration of the Fourth National Social Hygiene Day on February 1st. A feature of the celebration in Louisville will be a dinner meeting at the Kentucky Hotel, at which Dr. N. B. Hon, Past Assistant Surgeon, Division of Venereal Diseases, United States Public Health Service, Washington, D. C., will be the guest speaker. At this meeting a motion picture, depicting one of the newer phases in the control of syphilis, will be shown.

The campaign against venereal disease needs and must have the active assistance of all elements of citizenship, if it is to attain anything even approximating maximum success. Everybody can and should help.

You, as an individual, can familiarize yourself with the facts about syphilis and pass this knowledge on to others.

Your Club can arrange a special National Social Hygiene Day program designed to interest members and community in the fight to control the disease which takes its chief toll among the youth of the land.

Let's make the Fourth National Social Hygiene Day a bigger and better success in every community in the State.

Remember the date—February 1, 1940.

TREASURERS PLEASE NOTICE

Paid Membership Record

There seems to be a misinterpretation of Exhibit "D" (Paid Membership to August 1, 1939) of the Auditor's report of the Woman's Auxiliary accounts. (See October Quarterly).

For your information, each 50 cents received by your State Treasurer in payment of dues is credited for the current year's dues unless otherwise specified. It seems that in some instances memberships in arrears were paid and not identified and were therefore erroneously credited to the current year.

The suggestion has been made that in the future each remittance to your State Treasurer be accompanied by an explanation as to which year's dues the payment covers.

The important thing in life is to have a great aim and to possess the aptitude and perseverance to attain it.—Goethe.

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OUR BUSINESS

Mrs. Wm. H. Emrich, Business Manager

The success of the Woman's Auxiliary section of the Kentucky Medical Journal depends largely on the coordination of all departments of the Editorial Staff and the amount of reader interest. The Advertising and Business Management solicits advertising copy which is vitally important to the financial success of a publication of this kind; it is also constantly planning ways to help the Advertiser push his sales. Its work does not stop with selling Ads; it has in the past sponsored exhibits, style shows and a recent bazaar to which the Quarterly readers have responded most satisfactorily. At the beginning of this New Year, we believe we are offering a new feature in advertising which should prove interesting and profitable for Reader and Advertiser.

Save Sales Slips

In the four issues of our Quarterly, reputable business firms have purchased advertising space to promote sales of their products or service. When supplying your needs patronize these Advertisers and insist upon getting your sales slip with each purchase. Specify the particular brands put out by the distributors or wholesalers who advertise in the Quarterly. Have the dealer write these on the sales slip. Or, if you prefer, save the label or wrapper on the advertised product.

Somewhere in your home place a box or large envelope in a conspicuously convenient place where the entire family may see it; then all together save all receipts or sale slips, labels or wrappers and deposit them after each purchase.

Prizes

The person presenting sales slips and labels from the largest number of Quarterly Advertisers will be given a brand new Portable Philco Radio. There are also prizes for the persons presenting the second and third largest number of sales evidence. All entries must be sent to the Advertising Manager, Mrs. Jos. E. Wier, 1605 Chichester, Louisville, Ky., by June 1st, 1940. All persons are entitled to enter contest except the Advertising and Business Management and their families.

Start the New Year right by patronizing our Advertisers; then save and win a prize. Watch each Quarterly for our new Advertisements. The names of successful contestants will be published in the July issue of the Quarterly.

The Editor, Business and Advertising Managers cordially extend to all our Advertisers and Readers a **HAPPY, PEACEFUL and PROSPEROUS NEW YEAR.**



HYGEIA
Goddess of Health

Dear Auxiliary Members:

As your new State Hygeia Chairman, I am hoping it will be possible for each Auxiliary Member and each County Organization to co-operate with me in the Hygeia work.

Some efforts have brought some results. If we put forth more efforts, possibly greater results may be accomplished.

While in Chicago recently, I had an interview with our Circulation Manager, Mr. Cargill. He promises to send sample copies of Hygeia, together with helpful material to any County Auxiliary, upon request. So, will not each County Hygeia Chairman write either to me or direct to headquarters, to Mr. F. V. Cargill, Circulation Manager of Hygeia, American Medical Association, 535 North Dearborn Street, Chicago, Illinois, for sample copies and all necessary information?

Let us work together to increase the circulation of Hygeia, the authoritative magazine published by the American Medical Association for the benefit of all people interested in knowing more about health and how to keep healthy.

Sincerely yours,

(Mrs. J. W.) IDA B. SAMS,

State Hygeia Chairman

RESPONSIBILITY

Here are nine ways in which most folks respond to responsibility: Where is your place on the ladder of success?

The parasite: "I won't."

The quitter: "I can't."

The lazy: "I don't know."

The wisher: "I wish I could."

The slightly interested: "I might."

The hopeful: "I will try."

The sure one: "I can."

The busy one: "I will."

The boss: "I did."

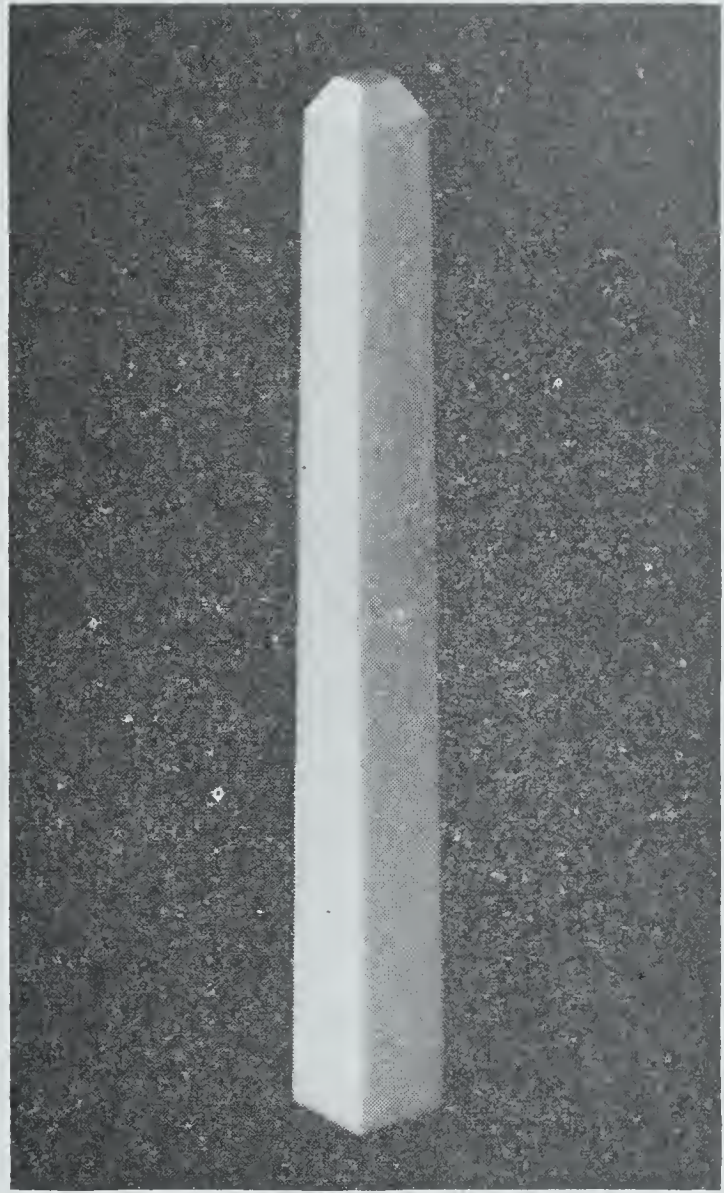
FRACTURE OF THE HIP IN THE AGED***G. A. Hendon, M.D., Louisville**

This shocking occurrence is more than an accident. It is a tragedy without immediate death to crown the melancholy drama thus precipitated. Many of you have seen patients for whom it drags its weary train of suffering from six months to a year. And, each day is crowded with events of torture and incredible suffering that is reflected upon every person who is connected with the victim by ties of kinship. This same parallel may be applied to numerous diseases as they existed before the discovery of modern methods of treatment. For fractured hip in the aged, I wish to present to you the modern methods which are on the obverse side of the shield. I bid you look on that picture of earlier treatment for fractured hip and then on this and I hope you will be smitten when you perceive how the Science of Medicine has transformed the crude proceedings of the past day and age into milder and briefer periods of suffering. The more efficient.

I must admit, however, that any view one may take, skepticism and criticism are both welcome by the sincere investigator because they are essential to the purity of Science. I welcome this opportunity to crusade in the cause of those unfortunate victims who fracture their hips and thus fall beneath the twin blights of age and physical disaster. This misfortune is in itself sufficient, but in the years past, the victims have in addition been penalized by a treatment that was unduly severe and often taxed the unfortunate individual beyond endurance. The fracture of the hip is so frequent that I doubt very much if there is a person in this room who has not had the bitter experience of watching some near relative in advanced life suffer the pains and torture by its dreadful consequences. For that reason alone, I am hopeful that I may succeed in awakening a spark of sympathy that may be fanned into wider influences than I have yet been able to employ.

The method that I am now advocating has proven in the one hundred and four operations that I have done, of unparalleled satisfaction. Not a single death has occurred as a direct result of the operation, which is in itself rath-

*Presented before the Study group of the Woman's Auxiliary to the Jefferson County Medical Society, November 6, 1939.



1. The Hendon Bone Key for use in fracture of the hip.

er a unique distinction in the operative field. It can be done under a local anaesthetic, but I have preferred in the majority of my cases to use a gas anaesthetic for reasons of convenience much as a dentist does. The time required to perform the various steps is incredibly brief. It requires only fifteen minutes from the first blood to the last stitch.

The details, I am afraid, will not interest you. That part I will present very briefly. The patient is placed upon an ordinary operating table. The injured side is drawn near to one edge of the table. The patient being suitably draped and anaesthetized, the nurse takes the injured leg at the top and bottom of the foot and makes enough traction to pull it down even with its fellow of the opposite side, and holds it turning the foot in an upright position. A lengthwise incision is made over the prominence of the hip bone, a projecting area called the trochanter. The incision is about a hand's breadth in length and the soft structure is separated to that extent

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from the bone. The space at the base of the trochanter is easily located and a device fashioned from a piece of beef bone is driven at right angles through the base of the trochanter and through the neck of the bone and into the head of the bone. No hole is bored. It is driven in like a nail through a shingle and it is nowise necessary to bore a hole. The foot is released and if it stands upright that is the test of a properly adjusted fracture.

The wound is closed with silkworm gut without drainage because there is seldom any excess wound secretions. A dressing of gauze is applied and held in position by strips of adhesive and the patient put to bed. There are no splints or any immobilizing apparatus of any description. No stretching with weights or pulleys or otherwise which frequently go awry causing discomfort.

The patient is placed in a comfortable bed with the springs supported in the middle by two 12-inch boards placed crosswise. She is allowed to assume any position that is compatible with her comfort. There is no trouble about using the bed pan and perhaps the next day she can sit up in bed. No special attention is paid to the injured limb whether it is flexed or extended or which way it lies. The patient has remarkably free movement any way she may desire. Sand bags may be used if they add to the comfort. The patient may lie on her back, on her stomach, or on either side if it seems desirable to her. It is advisable to change her around to avoid pressure ulcers commonly called bed sores. The patients may be allowed up in a chair within a week unless they have physical infirmities unconnected with the fracture. Senil-

ity which is a natural complication at this age may prove of some consequence.

The operative wound requires no special attention except a clean dressing about two or three times during the treatment. Certain complications which have deterred us from performing the operation in the past have proven themselves in the light of later discoveries to be non-existent. The only one we fear is infection and that may be taken into account in every open wound. The only cases of infection in my one hundred and four cases I have met twice—once in a morphine addict and once in a fat woman. In the morphine addict it progressed to a fatal termination in three months. The other case recovered in four weeks.

I have been called upon to do this operation as much as two years from the date of the fracture and got good results with no more trouble than in a recent fracture. The majority of patients have two or three hyperdemonics, one-sixth to one-fourth grains morphine, to control pain immediately following the operation.

I now wish to present a specimen from a patient 76 years of age which shows complete union though only four weeks had elapsed since the operation. Two weeks after he was operated upon it became necessary to perform a prostatectomy and a week later he succumbed and we were able to obtain the specimen which I now show you and which serves to illustrate the character of the operation better than I could describe it. As I have already stated, the Hip Key is the only procedure within my knowledge that is without an operative mortality which means that nobody dies as a direct result of the operation. I have followed my cases as well as I could and up to date I have eleven deaths in the first sixty days or two months in one hundred and four cases. These were all due to diseases independent of the injury we were called upon to treat. I find upon mak-



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ing inquiry that insurance statistics list ten per cent per year in all patients between the ages of 62 and 86 years of age whether there is an injury or not and this is the age limit that includes the patients which I have listed.

One of my cases was a paralytic who broke his hip falling out of a wheel-chair. He lived four months and was able to resume his chair in comparative ease and comfort. I had one patient 68 who labored under the disability of fracture of the hip two years and two months before he had the Key Operation performed. He regained the use of his limb and was able to resume his occupation which was superintendent of a sanatorium.

The device which I am using after mature and prayerful deliberation I have decided to call a Key. This is made of a section of beef bone $3\frac{1}{2}$ inches long three-eighths inches at one end and one-eighth at the other and square which prevents circling in the track as a round key would do. It is made by Mr. Theodore Tafel, 319 So. Third Street, this city. He designates it as a No. 5 to distinguish the hip variety. I have brought one along to show you.

Following the key operation, the patient is allowed up on crutches in two weeks and may discard the crutches when she feels strong enough, which is, indeed, a contrast to the early treatment of a fractured hip. It does not seem to make any difference how much time has elapsed since the injury. It does not seem to make much difference in the difficulties of the operation or the results obtained. The patient while in bed may be turned at will to avoid bed sores and may sit up when she so desires. This seems to be a source of great comfort and no doubt enhances the patient's chances for recovery.

The results of this or any other operation are distinctly modified by the complications that have existed before the injury and must be taken into account. I would like to take occasion to emphasize that the Key on insertion should travel at and near a right angle to the fracture as is possible.

Questions Answered by Dr. Hendon

1. Do the Keys ever come out?
Yes, I have had three come out after the fracture had healed.
2. Does this No. 5 Key fit all hips?
Yes, practically with slight modifications as to length.
3. Does pounding the Key into the hip splin-



The Bone Key placed correctly in treatment of fracture of the neck of the femur.

ter the hip bones?

No, because the driving is through the lattice-like structure of bone endings, cancellous bone.

4. Can you use this No. 5 key for fractures in any one under 62?
Yes.
5. Is this beef bone Key absorbed into the human hip?
Yes, but it requires 3 or 4 years.
6. Why are you not afraid of driving the Key too far?
The Key is measured on the X-ray picture, before the operation, to get the proper length.
7. How long before the patient can sit and walk?

They can sit up the next day and walk on crutches in two weeks. The time on crutches depends upon the natural spirit of adventure of each patient and her other infirmities.

8. Would regular drinking of milk keep our bones in such good condition that we would, even at 62 or 86, be less liable to fracture a hip should we fall?
Yes.
9. Is the patient easier to care for when the Key is used instead of the older types of treatment?
Yes. The patient is not required to be in any certain position and can soon

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Tuberculosis



Mrs. Lucius Ernest Smith, Louisville, State Chairman.

TUBERCULOSIS STILL LEADS

In spite of the decline in the tuberculosis death rate the latest reports show it is still the leading cause of death in the active period of life.

The official figures for 1938 recently released show 1221 persons between the ages of 10 and 50 died of tuberculosis in Kentucky. Accidents came next with 935. So long as tuberculosis is our greatest killer in the active period of life, we need to concentrate for its prevention and control.

The Early Diagnosis Campaign in April will give us a splendid opportunity. At this period the entire Nation, and State, will be thinking about tuberculosis control. Your local health department will be glad to have your assistance and cooperation in this important work.

Our organization can render important service throughout the year in the fight against tuberculosis. There is not a county without tuberculosis. Where there is tuberculosis there are always individual cases that offer opportunities for just such service as we are able to give. The needs of our respective communities should challenge us to do our best.

Some time ago Dr. Sockman of the New York Radio Pulpit was asked this question: "What is the future of the church in America?" His answer was "The future of the church in America depends upon its ability and its willingness to respond to human needs in time of crisis."

Let us think of this in broader terms. The future of any organization depends upon these same factors. Therefore the future of our own organization will depend upon our ability and our willingness to respond to the needs of those about us. Let us endeavor to make 1940 the greatest year of our existence by rendering adequate service to those who need us.

VOICES FROM THE FIELD

While this article is going to press recent reports from the field show that local groups are on the job.

Bowling Green reports the appointment of Mrs. W. R. McCormack as tuberculosis chairman. They are working with the seal sale committee, hoping to make a good seal sale, as well as carry on an educational campaign.

Miss Helen Travis writes that the Franklin County Group is working for promotion of the seal sale and plans to continue their cooperation in caring for sanatorium patients. We hope they find plenty to do.

Encouraging reports from Mrs. C. C. Turner of Sampson Community Group states Mrs. Bryan, tuberculosis chairman of Glasgow, is heading a group to promote their seal sale program while Mrs. Herbert Duncan is representing the Auxiliary in Hart County, and Mrs. Tim Lee Carter is assisting the work in Monroe County. Mrs. Turner is asking for information concerning the need of pajamas for Hazelwood Sanatorium. This fine group is hoping to do some work along this line in the near future. A good way to serve. More power to this fine group.

Mrs. H. R. Parker, tuberculosis chairman for the Breathitt County Auxiliary writes that her vice-chairman, Miss Virginia Hoge, with the assistance of Mrs. Romein is taking the responsibility for the Auxiliary's part in the seal sale, being assisted by Mrs. M. E. Hoge and Mrs. Bob Frances. Mrs. J. O. VanMeter, president of the Breathitt County group is in charge of seal sale publicity. A fine report.

Richmond and Berea are working for Madison County with Mrs. J. H. Rutledge, as tuberculosis chairman. Mrs. Wilson Dodd, Mrs. John Floyd and others have been working hard to make the seal sale a success. This fine group is tuberculosis conscious. More power to them.

Jefferson County Auxiliary is conducting booth sales for Louisville Tuberculosis Association. Each year they render valuable service in many ways. Mrs. Joseph F. Dusch is heading up this group of active members and they are alert to opportunities for service.

Mrs. E. E. Johnstone sends in a splendid report from Hardin County. They are taking care of their tuberculosis patients. Medicine, sputum cups, food and clothing are being supplied and they are trying hard to meet individual needs. An all day sewing was held at the home of Mrs. W. R. Bethel for the patients at Hazelwood. A clothing sale is planned for December 16. They are doing all this, but are not failing to cooperate in the seal sale. Surely here is an example for other groups to follow.

JANE TODD CRAWFORD MEMORIAL

JANE TODD CRAWFORD LUNCHEON

In the Hindustan Room at the Pendennis Club, Louisville, Mrs. A. T. McCormack was hostess for the second annual luncheon of leaders in the Jane Todd Crawford Trail development and beautification on Wednesday, October 18th.

Reports of the past year's work and plans for the future were discussed around a long table decorated with a miniature but quite realistic Jane Todd Crawford Trail running through the center. Beginning with a model of the Jane Todd Crawford cabin, of Green County, at one end, the tree, shrub and flower-decorated Trail crossed Green River, extended over Muldraugh's Hill, and wound its way over creeks and around hills to a model of the home of Dr. Ephraim McDowell in Danville, at the other end.

Those present representing the four Counties—Green, Taylor, Marion, Boyle—through which the actual Trail extends; together with some of the most active supporters in Jefferson County during the past year were: Mrs. R. L. Durham, Greensburg; Mrs. George M. Barbee, Mrs. Harry T. Edwards, Mrs. Lyman Hall, Campbellsville; Miss Elizabeth Murray, Lebanon; Mrs. Dena Shelby-Diehl, Danville; Mrs. George A. Hendon, Mrs. Stephen C. McCoy, Mrs. James W. Sams, Mrs. Jos. E. Wier, Mrs. Wm. H. Emrich, Miss Grace Stroud, Mrs. A. T. McCormack, all of Louisville.

DONATIONS

FOR JANE TODD CRAWFORD TRAIL

(Conclusion of Annual Report presented at Bowling Green.)

A detailed record of the flower seeds contributed for planting this second year was not kept. A large number of plants and shrubs generously contributed, have been listed as follows:

Anonymous Friend—"for a lilac bush" ..\$5.00
Asbury, Dr. W. O., Campbellsburg—Iris, several bushes.

Atkinson, Dr. Frazier, Marion — Dusty Miller and Salvia Plants.

Bessire, Mrs. Edwin H., Louisville—Marigold—and Zinnia plants.

Coleman, Mrs. Warren K., Atlanta, Georgia, One dogwood tree.

Haupt, Mrs. Fred, Louisville — Ageratum—white, cedum, day lilies, runnuculi, sweet violet plants.

Henry, Mrs. Ada, Louisville—Roses, Clematis, iris, feverfew, Persian rose, phlox, zinnia plants.

Lips, Mrs. Jacob, Louisville—Chairman for Woman's City Club:

Knauer, Mrs. George, Louisville—cedum plants, iris. Several shrubs, forsythia, jap, barberry, spires, syringa.

Payton, Mrs. J. E., Louisville — Two bushel of iris.

South, Mrs. John G., Frankfort—Iris, narcissus, hydrangea, skyrocket plants, forsythia.

Strong, Mrs. Conrad, Alexandria, Va.—Oriental poppies and sunflower plants—125; Althea bushes—400.

Teare, Mrs. Alfred D., Berlin, N. H.—Spirea, 10 bushes.

White, Mr. E. J., Louisville—Dahlia bulbs..12

Hours of Labor—Digging up Shrubs

Haskins, Otho, Louisville.....8

McBride, Julius—Louisville8

CANCER CONTROL — OUR PART

Mrs. Bernard Asman, State Chairman

The wives and families of most of the Doctors need not be told that a very great responsibility rests upon their shoulders in regard to information about cancer, which laymen expect us to be able to give them. One of the most important things for us to remember is the first principle of the education of the laymen, namely "Cancer is curable, if caught in time." We will not be expected to tell these persons whether or not they have cancer or how it can be cured, but we can and should inform ourselves of the initial signs and symptoms of cancer and urge, most of all, the early consultation of a reputable physician if any of these indications of disease be present.

Cancer Control is but one of the many activities of the Auxiliary, but it is one of the most important simply because cancer is claiming, unnecessarily, so many lives each year that could be saved if we, the families of physicians, join with them in educating the public in the principles given above.

In the drive which the Woman's Field Army for the Control of Cancer conducts through April, they need the cooperation of every member of the State Auxiliary. I am, therefore, taking this opportunity, as your State Chairman for the Control of Cancer, to ask each County President to appoint a chairman to work with me in this drive. And, please let me have her name and address just as soon as possible so I may get in contact with her.

Your whole hearted cooperation, and that alone, will make our work a success and enable me to give our State President the good report she is expecting.

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RECENT TRENDS IN MEDICAL ECONOMICS IN KENTUCKY*

J. Duffy Hancock, M.D., Louisville

During the past year, organized medicine scored two rather significant victories. One was the failure of Congress to pass the Wagner Health Act of 1939, or any similar substitute measure; the other was a lower court decision establishing the practice of medicine as a profession rather than a trade, subject to the Sherman Anti-Trust Law. The attitude of physicians generally at the Saint Louis meeting this year was decidedly more optimistic and militant than at San Francisco in 1938. The trend towards generalized state medicine seems to be halted. However, some form of increase in State aid appears to be just as inevitable and the subject of Medical Economics remains a most timely one. Undoubtedly, plans for the distribution of this aid will be politically inspired, if we do not take the initiative and originate them from professional sources.

In consideration of such plans, it is my opinion that there are three fundamentals that cannot be compromised. It is essential to the welfare of the public as well as to that of the physicians that authority for the operation of any be under State and local control of organized medicine, that the patient's freedom of choice of his physician be inviolate, and that the role of the Federal Government be limited to financial and technical assistance. Any plan which can qualify in regard to these three fundamentals will, if practical, be acceptable.

There are some who criticize the American Medical Association for not submitting some magic plan to be effective generally and immediately. Such criticism is most unfair because of the generally varying conditions, not only in different parts of the country, but even in different parts of each State, as is so well shown by our own Commonwealth of Kentucky. That the AMA has distinctly recognized this is shown by the following extract from the report of the State Committee on Medical Economics:

The need for medical care of indigents was well expressed at a joint meeting of

representatives of the American Public Health Association and the Board of Trustees and officers of the American Medical Association in December, 1937. At this joint meeting the following resolution was passed:

WHEREAS, a varying number of people may at times be insufficiently supplied with needed medical service for the maintenance of health and the prevention of disease; and

WHEREAS, the means of supplying medical service differ in various communities; be it

RESOLVED, that the American Medical Association stimulate the State and county medical societies to assume leadership in securing cooperation of State and local health agencies, hospital authorities, the dental, nursing and correlated professions in determining for each county in the United States the prevailing need for medical and preventive medical service where such may be insufficient or unavailable; and that such State and county medical societies develop for each county the preferable procedure for supplying these several needs, utilizing to the fullest extent medical and health agencies now available,

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*Presented before the Study Group of the Woman's Auxiliary to Jefferson County Medical Society, October 2, 1939.

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in accordance with the policies of the American Medical Association.

This can apply, of course, equally well to the part-pay group as to those entirely indigent. Not one but many plans have been suggested, and some are now operating in many parts of the United States.

Our specific problem however is that of Kentucky, and I would like to present to you the report of the Committee on Medical Economics of the Kentucky State Medical Association, as submitted at the annual meeting at Bowling Green last month. The factual data is of monumental scope and amazing accuracy. The few discrepancies are the inevitable result of haste and volume and will be corrected as detected. While I was a member of this committee, I can praise that part of the report with complete modesty, as it was entirely compiled by the Chairman, Dr. Howard, and by Dr. Crittenden and his staff, and I made no contribution. This factual part of the report was accepted and approved by the House of Delegates. Let us consider it first and later discuss the recommendations which were the cause of considerable controversy, and which were not accepted.

From the report, we see that:

Economically, Kentucky is hard to place. She is south of the corn belt, although she grows some corn. She is north of the cotton belt although she grows some cotton;

she does not belong to the wheat belt, or any other specific agricultural belt. Yet, on the other hand she is not an industrial state. There is some fruit, but she is not a fruit raising state. She has some of the richest land and some of poorest in the nation. She gains much of her income from the distillation of whisky, the growing of tobacco, and the promotion of horse racing. In the last analysis, though, Kentucky must be classed as an agricultural State, since the highest number of its gainfully employed are farmers.

For an appreciation of the inadequacy of any single plan of medical care for the entire State, I would suggest that you consider the analysis of four sample counties, Breathitt, Davies, Jefferson and Wolfe, for example. The variation in population, number of physicians, hospitals, nurses and dentists, the type of roads and their mileage, the income per family, and the number of people on relief are given too much in detail to present here, but a casual study of them will show the need for diversified methods of attack in different parts of the State.

Many interesting facts are condensed in the summary of the report. The foreign born population in 1930 was only .8 per cent. There is a decline in the rate of growth, accompanied by a marked increase in the number of persons 65 years of age and over.

Only five States in the Union have a per capita income less than that of Kentucky, where it is \$240.00. Twenty-nine Kentucky counties have a per family income of less than \$500.00. Ten per cent of the State's employable population lives on relief funds. The assessed valuation of property showed a decrease of 14.8 per cent between 1932 and 1939 and the State has 29 pauper counties.

The gross number of physicians in the State is adequate, but their distribution is not. In urban communities, there are 14.7 physicians for each 10,000 population; in rural areas, 5.8 per 10,000 population.

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Twenty-three of the 72 general hospitals in the State, with 65 per cent of the total beds, are in thirteen cities. The three largest cities, Louisville, Lexington and Covington, representing only one-sixth of the State's total population, have more than one-half the total number of hospital beds. There are but three hospitals for the care of the tuberculous, two in Jefferson County and one in Fayette County.

The nurses, like the physicians, are concentrated in the large urban centers and in some counties mid-wives attend from 40 to nearly 100 per cent of the deliveries.

While heart disease, cancer and diabetes show consistent mortality increases, the crude death rate has decreased because of significant drops in typhoid, diphtheria, diarrhea, enteritis, and deaths of infants under one year of age. Although tuberculosis is showing a definite decline in mortality, it still accounts for about 2,000 deaths each year. This means that there are, approximately at all times, 12,000 cases in the State, too many of which are adolescents, over one-half of whom are indigent and for whom practically no hospitalization is available except in Jefferson and Fayette Counties.

Approximately 17 per cent of all private patients are indigent, and in most localities the burden of their medical care is on the shoulders of private physicians.

As a result of their study of these factual findings, the committee offered some recommendations which were rather questioned and were not accepted. Having been present at the committee meetings and realizing the attitude of its members, I feel that

much of the criticism was due to misunderstanding of our aims—a misunderstanding probably due, in turn, to poor expression of our views.

The report does not recommend the creation of a Bureau of Medical Service acting jointly with the State Medical Association and the State Department of Health. That Bureau has already been established as a necessary legal unit, since all governmental funds are distributed through the State Board of Health. It was recommended that this Bureau's activities be extended so that all matters dealing with medical and hospital care of the indigents would be unified under the control of this one Bureau.

A further important recommendation was that this Bureau should operate under a Medical Guidance Board, appointed by the State Board of Health and consisting of the State Commissioner of Health, the State Commissioner of Welfare, two members selected from a list of two or more members of the State Medical Association submitted by its Council, and one member

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from the State at large, the latter member to be chosen by the four heretofore named. Such a Board would always have three of its five members physicians. If this plan of appointment is not satisfactory, some suitable one could be arranged.

The next recommendation is that the indigent patient receiving aid from this Bureau shall have free selection of his physician, who must be within his locality.

In order to give quicker service, some decentralization of laboratories was proposed and adequate personnel for the county health units was suggested for the proper certification and care of indigents.

An average of 70 per cent of the usual fee for house and office calls seemed about equitable, since collections from the Bureau would be 100 per cent. The same is true of fees for hospitalization.

While the justice of a small fee or honorarium for the specialist and other physicians attending hospital patients was considered, no recommendation was made because of the immediate inadequacy of funds and the more convenient nature of the work.

The recommendation regarding hospital control was made to correct an evil now present in the State where hospitals without satisfactory equipment or resources are offering prepaid services which they are not able to provide. It was not the Committee's intention at all to place city hospitals, tuberculosis sanatoria, crippled children's hospitals, etcetera, under the control of this Bureau. Such units are already operating under legal machinery which would not be repealed. For purposes of clarification, they could well have been specifically exempt had the committee anticipated any fears in this regard.

The recommendation for increasing hospital facilities for the tuberculous looks to a most obvious need.

The last two recommendations, dealing with the teaching of medical economics, which is now being done at Louisville, and the establishment of some form of preceptor method of instruction, were simply suggestions, as the committee members realize that the State Association has no voice in

the control of the University of Louisville School of Medicine.

Such are recommendations which will be discussed during the coming months. They are of vital interest. In order to evaluate their accuracy or inadequacy, study the factual evidence and reach your own conclusions. I am sure the committee holds none of them indispensable and is quite willing to see any modification desired by the House of Delegates.

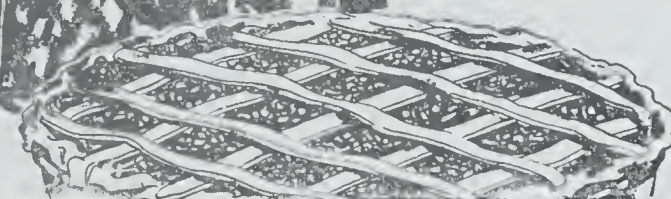
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CHILD HEALTH AND WELFARE

Mrs. Joseph E. Wier, Louisville, State Chairman, Public Relations

QUESTION BOX

January is a month of beginnings for most people. What could be more worthwhile beginning than new efforts in the health programs of our children.

Posture and teeth play such important roles in the health drama, that we selected questions for this issue that would aid you in starting a correct health regime for your child. If followed this procedure will not only assure better health but develop beauty.

Question: HOW CAN I INSURE A GOOD POSTURE FOR MY GROWING CHILD?

Answer: Good posture is one of the most essential outward signs of a well-built and normal functioning body; therefore, to obtain or insure a good posture in the growing child, the parents should be impressed with the importance of good food and health habits.

Adequate rest must be especially mentioned as a contributing factor to good carriage. Tired and fatigued muscles do not perform their required work and there results a general body slump.

Also there is the necessity of regular examination by a physician in order to prevent unnecessary deformities. Most defects or abnormalities can be avoided unless there is some disease of the bones such as tuberculosis or curvature of the spine. Ninety per cent of the defects can be cured, and most all, aided or abetted if treatment is started in time.

Children are taught everything except how to stand and walk. Good body carriage and bearing is quite as important a requirement for participation in society as a well-cultured mind. Perhaps it is even more important. Poor positions make the individual appear stupid and inefficient, and, in one instance, round shoulders have been known to cause poor eyesight.

Some indications of good standing position are as follows: The body is balanced equally on the balls of the feet. The feet are parallel and the toes point straight forward. The lower abdomen is held flat. It may be rounded somewhat as it approaches the ribs. The spine should be straight, curving slightly forward at the neck, slightly backward just below the shoulder blades, again slightly forward at the waistline. Normally none of these curves are exaggerated. The shoulder blades are held flat and fairly close together. Always the head is held high with the chin in.

Posture should not be thought of as existing only in the standing position. The child

should be judged even more by the way he sits and walks when unobserved. Good posture must be habitual.

Then, there is the very important subject of the feet, important because they are the foundation of the structure. As mentioned before, feet should be parallel with the great toes pointing forward. The inner and outer sides of the ankles should appear to be equally prominent. The bones on the inner side project abnormally when the arches are weak. The arches themselves should be strong and limber with the inner borders of the feet straight from heel to tip of the great toe. In order that the feet present this picture, proper fitting hosiery and shoes should be worn. As a matter of fact, ill-fitting body clothing of any kind is detrimental to erect bearing and freedom for normal motion. Chairs or desks of improper size or height tend to cramp the body and promote faulty positions.

These faulty positions produce awkwardness while a good posture is truly beautiful to observe and produces a more efficient body which can perform heavy and intricate tasks regardless of the size or type or build of the individual.

W. Barnett Owen, M. D.

Question: WHAT STEPS CAN A MOTHER TAKE TO BEST SAFE-GUARD THE DENTAL HEALTH OF HER CHILD?

Answer: In attempting to avoid dental deterioration, as for any disease, the mother's first precaution is to see that the child's general resistance is good. This resistance is established by her attention to her own health and diet during the prenatal period. Then, after the baby is born, maintained by following carefully her physician's instructions in regard to the child's health and diet. In brief, this diet should include the necessary fruits and green vegetables, cod-liver oil, and, at least a quart of milk, daily.

As the condition of the child's first teeth has a marked effect on the condition and alignment of his permanent ones, these first teeth should be given scrupulous care. From the time he is three years of age, he should visit his dentist every three months and have all small defects corrected. Caring for these small defects when they first appear not only avoids much discomfort for the child, but, is one of the surest means of controlling his future dental health.

Maurine M. Bolton, D.D.S.

News From The Counties

BREATHITT

The Woman's Auxiliary to the Breathitt County Medical Society has elected the following new Officers, all of Jackson:

President—Mrs. Jesse O. Van Meter
 Vice-President—Mrs. H. June Jett
 Committee Chairmen are: (All of Jackson)
 Cancer—Miss Helen Hogg
 Doctor's Shop—Miss Irene Hoge
 Historian—Mrs. Frank K. Sewell
 Hygeia—Mrs. Mervin Eugene Hoge
 Jane Todd Crawford—Miss Mattie Lee Redwine
 Program—Mrs. H. June Jett
 Publicity—Mrs. Frank K. Sewell
 Public Relations—Mrs. Jesse O. Van Meter.

The November meeting was held at Lee College Dormitory with Mrs. J. O. Van Meter, our new President, as hostess. The program was Tuberculosis. Mrs. H. R. Parker presented a paper which she had prepared with material gathered from various sources, making it most interesting and giving a splendid preparatory background for our Seal sale Drive. Mrs. Parker, Mrs. M. E. Hoge and Mrs. Robert C. Francis will have charge of the Seal Sale in the business section and we expect results of which we will be proud. Two other important projects were discussed. One which we definitely decided was to send a Christmas box filled with towels to Hazelwood Sanitarium. The other project was to endorse a movement that would further public sentiment in favor of a Milk Ordinance for Jackson.

Our next meeting will be held Monday, December 11th, at the home of Mrs. Frank

K. Sewell. Mrs. M. E. Hoge is Chairman of the program which will be Jane Todd Crawford.

CALLOWAY

The Woman's Auxiliary to the Calloway County Medical Society was re-organized on October 10th by Mrs. H. V. Usher, Sedalia, our immediate Past President, at the home of Mrs. Adolphus D. Bettersworth, Murray. The following officers were elected:

President—Mrs. E. L. Garrett, Murray.
 Vice-President—Mrs. Cody Harrison Jones, Lynn Grove.

Secretary-Treasurer—Mrs. Lonnie D. Hale, Murray.

Committee Chairmen are:

Cancer—Mrs. James Alfred Outland, Murray.

Hygeia—Mrs. Robert Macon Mason, Murray.

Jane Todd Crawford—Mrs. Hal E. Houston, Murray.

Publicity—Mrs. Robert Macon Mason, Murray.

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Public Relations—Mrs. James Alfred Outland, Murray.

Tuberculosis—Mrs. Hugh L. Houston, Murray.

The next meeting was held on November 9th and plans were made for the observance of Jane Todd Crawford Day on December 13th.

A Health Talk, sponsored by the Calloway County Auxiliary, was given before the P. T. A.

FRANKLIN

The first meeting of the Auxiliary for the new year was held October 5th at the residence of Mrs. John P. Stewart.

At this meeting the President announced that the District meeting of the State Medical Society of the Sixth District would be held in Frankfort on December 13th.

The Woman's Auxiliary therefore planned a tea for that date to entertain the visiting relatives of doctors who might accompany their husbands to this meeting.

The President of the Auxiliary completed the appointment of all Committees for this year's work and outlined their duties.

The raffle of a quilt for which the Auxiliary had been selling chances was completed and \$100.00 was realized.

Plans for the year's work were discussed.

After a delicious luncheon the meeting



was adjourned. Twenty-one members were present.

Mrs. L. L. Clell has accepted appointment as Chairman of Hygeia, following the resignation of Mrs. E. C. Roemele upon the death of Dr. Roemele.

The November meeting of the Franklin County Medical Auxiliary was held November 14th at the residence of Mrs. John G. South.

Two large boxes of warm clothing, baby layettes and toys were packed and shipped to the Frontier Nursing Service.

The Chairman of the Jane Todd Crawford Trail reported one large shipment of Van Houtii Spirea and to the Jane Todd Crawford Library reported forty-two books shipped.

The Franklin County Auxiliary has undertaken as its local work the improvement of the Hospital for the Colored Citizens which is in a deplorable condition. The Franklin County Fiscal Court formerly contributed \$25.00 a month toward the support of this hospital. Recently this appropriation had been cut from \$25.00 a month to \$8.00 a month. The Woman's Auxiliary went in a body from Mrs. South's home to the Fiscal Court and made a plea that the \$25.00 a month appropriation be restored to the hospital. County Judge Boone Hamilton agreed to restore the regular \$25.00 monthly contribution and agreed in addition to pay the difference between the \$8.00 and the original appropriation of \$25.00 covering the period of time since the reduction. Judge Hamilton, in addition, pledged himself to arrange an entertainment at the Court House, the proceeds of which are to be given to the hospital.

The Franklin County Auxiliary contributed at the November meeting, \$150.00 to pay outstanding indebtedness of this hospital and planned a number of entertainments for money raising purposes.

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GRAVES

Mr. and Mrs. Will Vaughn are visiting her brother, Mr. Dumas Nix, in Amarillo, Texas.

Dr. and Mrs. J. Andrew Mayer are moving from Fort Worth, Texas, December 1st, to Mayfield, Kentucky, where he will be associated with the Mayfield Hospital and Clinic.

The Auxiliary extends its sympathy to Mrs. M. W. Hurt and family in the passing of Dr. Hurt on October 7th.

The December meeting of the Graves County Auxiliary will be held with Mrs. H. H. Hunt as hostess. An interesting program commemorating Jane Todd Crawford has been planned.

HARDIN

Hardin County is making a drive for new members.

Mrs. J. I. Greenwell, of New Haven, has joined Hardin County since Nelson no longer has an Auxiliary.

Our annual all day sewing was held at the home of Mrs. Wm. Bethel on Jane Todd Crawford Day.

Hardin County Auxiliary took an active part in the sale of Christmas Seals.

Mrs. R. T. Layman was Chairman of the P. T. A. program for October meeting, assisted by Mrs. George Bradley, subject "Youth and Health."

Four of our members visited our indigent tuberculosis patients, one 12 miles in the country, filling their winter needs. We will also help feed undernourished school children.

Mr. and Mrs. Wm. Bethel spent a week with their son, Dr. Millard Bethel and wife at Concord, N. C. Dr. Bethel has a position with the North Carolina State Board of Health.



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Dr. Wm. Barnard and son, Billie, visited Dr. Barnard's parents in Union Grove, Ala., November 23-27.

Mrs. James Herd, of Cleveland, Ohio, is visiting her son, Dr. Leslie P. Herd and Mrs. Herd.

For some quick money for Christmas Hardin County Auxiliary held a second-hand sale of clothing.

Dr. and Mrs. George Bradley, of Elizabethtown, were grieved by the death of Mrs. Bradley's brother, Leonard Taber, at Cecilia, November 19th.

JEFFERSON

The Woman's Auxiliary to the Jefferson County Medical Society held its regular annual meeting December 4th at the Brown Hotel. Mrs. Joseph F. Dusch presided due to the absence of our President, Mrs. P. E. Blackerby, who was confined in the Vanderbilt Hospital at Nashville, Tenn., as the result of an automobile accident.

The guest speaker for the day was Mrs. A. E. Sawyer, who chose for her subject "About Ourselves." Mrs. Sawyer said that one of the most important laws today is the Law of Social Feeling. She told how if we break these laws of co-operativeness and adjustment they in turn will break us. She

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then explained the "Law of the Imagined End."

After this address the Auxiliary proceeded with the regular business meeting. Each Committee Chairman present made her report for the year, and all the members were amazed and gratified at the amount of work that had been accomplished for the past year.

All the regular and miscellaneous business having been completed, Mrs. J. Paul Keith installed the following new Officers:

President—Mrs. R. T. Hudson.

President-elect—Mrs. Bernard Asman.

Vice-President—Mrs. O. H. Kelsall

Secretary—Mrs. Octavus Dulany

Treasurer—Mrs. F. Parks Ogden

Parliamentarian—Mrs. J. Paul Keith

Judicial Council—Mrs. Arch Herzer.

Mrs. Hudson, the new President, accepted the gavel and said she realized the honor and responsibility of her new office which she would endeavor to fill to the best of her ability. She then named the following Chairmen on her various Standing Committees:

Archives—Mrs. J. Rivers Wright—Seelbach Hotel.

Benevolent Fund—Mrs. F. Parks Ogden — 4454 S. 6th St.

Better Films Council—Mrs. Thos. J. Crice —2208 Lauderdale Road.

Doctor's Shop—Mrs. J. B. Lukins—1280 Eastern Parkway.

Fruit and Flower Guild — Mrs. Walter

Hume—2218 Village Drive.

Historical Collection—Mrs. John Freeman —2104 W. Broadway.

Hospital and Welfare—Mrs. Curt Krieger —2000 Grasmere Drive.

Hygeia—Mrs. Jos. C. Dahlem—3400 Bardstown Road, Buechel, Ky.

Jane Todd Crawford—Mrs. Geo. A. Hendon, 615 Brown Building

Luncheon and Decorations—Mrs. O. H. Kelsall—4704 Southern Parkway.

Mayor's—Mrs. Stephen McCoy—Preston Street Road.

Membership—Mrs. P. E. Blackerby—559 Sunnyside Drive.

Music—Mrs. Sidney J. Myers—1717 Harold Ave.

Program—Mrs. Bernard Asman—2200 Napoleon Blvd.

Public Relations—Mrs. Arch Herzer—2105 Village Drive.

Publicity—Miss Grace Stroud—424 East Lee St.

Sewing Unit—Mrs. Geo. Leachmann—1820 Casselberry Rd.

Telephone—Mrs. C. G. Arnold—3210 Wren Road.

Tuberculosis—Mrs. Jos. F. Dusch—4523 Western Pkwy.

Mrs. Hudson then gave a short sketch of her plans for the Auxiliary for the following year, the first of which was carried in the motion that we have a new membership drive beginning with a tea. Mrs. Hudson said that

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she would name her committee later, and that they would select the time and place.

An epidemic of accidents has struck Jefferson County, it seems. Our President, Mrs. P. E. Blackerby, was in the most recent one. She and Dr. Blackerby were on their way to Memphis, Sunday, November 10th, to attend the Meeting of the Southern Medical Association when their car skidded and went over an embankment. The Fibula in Mrs. Blackerby's left leg was broken and Doctor suffered a painful back injury. They were taken to the Vanderbilt Hospital in Nashville, where they were both placed in casts. It was a harrowing experience but they are both doing well now, and arrived back home Friday, December 8th.

Another accident victim is Mrs. P. S. Ganz who fell on a walk and broke her back. Our best wishes for a speedy recovery, Mrs. Ganz.

The Advertising Manager of the Quarterly, Mrs. Joseph Wier, also has a broken back. She injured her back while attending the Fair in New York City in August. She is able to sit up only three hours a day but we are hoping that will soon be extended to all day. While thus confined, she has been busy and secured the necessary advertising contracts to finance the Quarterly.

The first Monday of October the Study Class had the pleasure of hearing Dr. J. Duffy Hancock tell of recent developments in Medical Economics. In November, Dr. George A. Hendon spoke on Fracture of the Hip in the Aged. Since then Dr. Hendon has had a severe illness and was confined at St. Anthony's Hospital. He, however, has improved nicely and was able to return to his home December 9th.

The speaker for December was Mrs. A. B. Sawyer, whose subject was "Ourselves."

The first fall meeting of the Sewing Unit was at the home of Mrs. S. C. McCoy the second Tuesday in October. In November at the home of Mrs. L. J. Hackett we dressed

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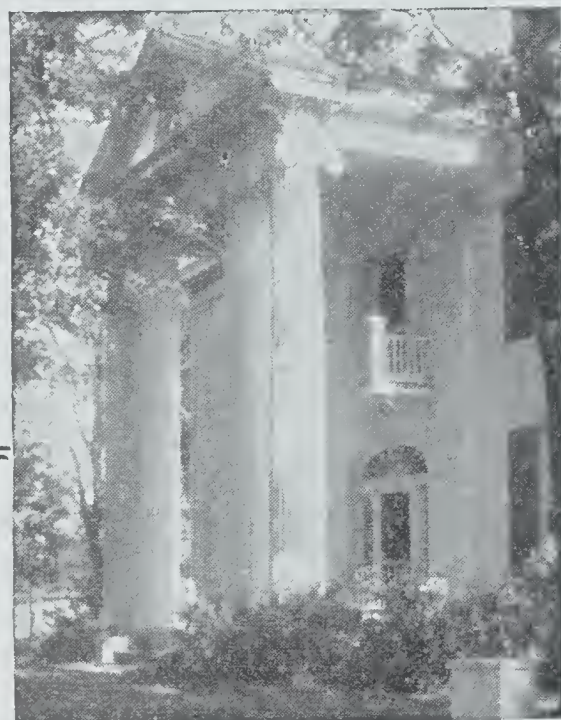
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dolls for the mountain children reached by the Frontier Nursing Service. Assembling these dolls and other toys is always one of the pleasantest tasks we have and I am sure the children can not get as much enjoyment out of them as we have in preparing the box.

Another treat is trimming a Christmas tree for the children in the "Homesick Ward" of the Children's Free Hospital. These tots appreciate the tree and the little gifts of toys and fruit and candy so much that it is a joy to watch them. We also trim trees and leave gifts for the patients in the Psychopathic Wards of the City Hospital.

Mrs. Vincent Stabile has the sympathy of all in the loss of her father, the distinguished Dr. Gaspar Impellizzeri, at his home, Alcamo, Sicily, October first. Widely known throughout Italy, Dr. Impellizzeri was a Cavalier in the order of Knights of the Crown of Italy, an honorary title given by the King for humanitarian service. He was medical captain in the Italian army and director of several hospitals during the World War. Surviving, daughter, Mrs. Stabile, and two grandchildren here; his wife and three other daughters.



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LICKING VALLEY

On September 28th, the Licking Valley Auxiliary met at the Harrison Hotel, Cynthiana. The program consisted of reports from the Annual Meeting of the State Medical Auxiliary, held in Bowling Green, September 11-14, given by Mrs. John E. Dawson, Fort Thomas, and Mrs. John M. Blades, Butler. A delicious luncheon was served, followed by a theatre party given by Mrs. J. P. Wiles. Those attending were: Mrs. H. H. Moody, Mrs. H. F. Midden, Mrs. O. H. Chamberlain, Cynthiana; Mrs. Asher Caldwell, Mrs. Hadley Caldwell, Southgate; Mrs. McNeally Berry, Mrs. John E. Dawson, Ft. Thomas; Mrs. Wm. Kenzie, Williamstown; Mrs. John M. Blades, Butler.

Miss Halley Florence Caldwell, Southgate, and Mr. F. L. Gosney, Alexandria, were married September 2nd and are at home in Alexandria. The bride is the daughter of Dr. and Mrs. Asher Caldwell. For the past few years she has been a capable and efficient teacher of Home Economics in the Alexandria High School.

Those from this section of Northern Kentucky who attended the Annual Meeting of the State Medical Auxiliary were: Dr. and Mrs. H. C. White, Mrs. Joe White, Covington; Dr. and Mrs. Luther Bach, Bellevue; Dr. and Mrs. John E. Dawson, Ft. Thomas; Dr. and Mrs. John M. Blades, Butler.

Dr. and Mrs. E. J. Yellton, German town, recently spent a month in Michigan.

Dr. and Mrs. Asher Caldwell and Dr. and Mrs. Hadley Caldwell spent their vacation at Lake Wampler's.

Dr. and Mrs. C. F. Haley and daughter, Rose Mary, visited the New York World's Fair in June.

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Dr. and Mrs. H. C. White attended a Medical Convention in Charleston, West Virginia.

Dr. and Mrs. John E. Dawson spent a few days in North Carolina after attending the State Medical Meeting in Bowling Green.

Dr. and Mrs. Luther Bach spent a few days at Boone Tavern, Berea, Kentucky, in September.

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PROGRAM FOR 1939—1940 SAMPSON COMMUNITY MEDICAL AUXILIARY

OCTOBER 3—

Hostess Mrs. John Harlin
Leader Mrs. C. C. Howard
Reports from State Meeting.... Mrs. H. G. Davis, Mrs. Clifton Richards
Pioneer Doctors—Miss Ida Winn, Mrs. C. G. Depp, Mrs. Barrick Bryan, Mrs. Clifton Richards

NOVEMBER 6—

Hostess Mrs. H. G. Davis
Leader Mrs. Paul S. York
Prof. Quiz on Quarterly.
Questions from Hygeia.

DECEMBER 12—

Hostess.....Mrs. J. W. York
Leader.... Mrs. John Dickinson
The Allergic Child.....Miss Black
Questions from Hygeia.

JANUARY 16—

Hostess.....Mrs. J. J. Adams
Leader.....Mrs. R. E. Hayes
Should Cousins Marry? Mrs. Barrick Bryan
Questions from Hygeia.

FEBRUARY 27—

Hostess.....Mrs. Paul S. York
Leader.....Mrs. O. A. Beatty
The Acceptance Seal.....Mrs. C. G. Depp
Hygeia Lesson.

APRIL 9—

Hostess.....Mrs. John Dickinson
Mrs. R. E. Hayes
Public Meeting—Nurses Home
Leader.....Miss Marian Black
Cancer.....Local Physician

MAY 6—

Hostess.....Mrs. W. A. Weldon
Leader.....Mrs. Tim Lee Carter
American Spas.....Mrs. H. B. Ray
Lesson from Hygeia.

JUNE 18—

Hostess.....Mrs. Clifton Richards
Election of Officers.
Leader.....Mrs. J. J. Adams
This Little Pig.....Mrs. Owsley

JULY 30—

Hostess.....Mrs. C. C. Turner
Leader.....Mrs. Herbert Duncan
At Home To Safety.....Mrs. H. G. Davis

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PUBLIC RELATIONS

Mrs. Jos. E. Wier, Louisville, State Chairman

We are now ready for concerted action in the field of Public Relations. We must not delay our start. How many counties have had a Public Relations Tea? This tea is one of the "Special Recommendations" of our National Public Relations Chairman, Mrs. R. E. Mosiman. Don't you remember we talked about it at the State Meeting at Bowling Green? I am going to enumerate again our aims and I do hope you will write me at the end of this year and tell me how many of them you have tried.

Some of you do rate special commendation for the splendid reports you sent in last fall. Please do not hesitate to write for information on Public Relations Activities.

Concrete objectives for Kentucky Auxiliaries for 1939-40:

1—Our National Public Relations Chairman, Mrs. R. E. Mosiman, suggests a Public Relations Tea in every county as a good way to let Women's Clubs in your community know that you can supply them with literature and speakers on Health questions. Assure them that you are willing to aid them in every way.

Here is a copy of a Sample Invitation:

We are sure there are members in your club who have questions concerning health problems of general interest. The Woman's Auxiliary to the ——— County Medical Society has arranged to have your questions discussed at the Annual Public Relations Meeting which will be held Thursday, February 4, 1940, at 2:30 P. M., in the Auditorium of the Medical Dental Building.

"How Can The Public Health Be Safeguarded?" is to be the theme of the meeting. As many of your questions will be discussed as time permits, each by a physician well informed on that particular subject. Will you present this invitation to your Club and obtain ten such questions before January 28th? Please mail these questions to Mrs. ———

Sample questions:

1. At what age should children be vaccinated?
2. Why should I have a yearly physical examination?

After the meeting, tea will be served, at which time we will have an opportunity to meet one another. There will be no charge.

We hope you and the members of your Club will accept our invitation.

Very sincerely yours,

- 2—Ask the Women's Clubs to cooperate with you in a campaign to inspect all public toilets in your community. If they are in an unsanitary condition, notify the proper authorities. In case of toilets in filling stations, **write the company sponsoring the station.** This would greatly aid the venereal disease fight being waged in this State.
- 3—Continue to interest yourselves in the School Health Programs.
- 4—Assist in Health Institutes and Clinics.
- 5—Popularize good Health Radio Programs, Listen to as many as you can, and if you like them, tell your friends and ask them to listen.
- 6—Get acquainted with the members of your County Health Department. Give their programs a careful study.
- 8—Read the editorials in the Kentucky State Medical Journal, The American Medical Association's Journal and Hygeia. These editorials will aid you in your discussion of this important subject with your friends, on the morning trip to the grocery, or at the bridge table. Be correctly informed yourself.
- 9—Study diets, the responsibilities which the home has in maintaining adequate nutritional functions. Warn of the dangers of dieting for slimness without Medical supervision. Make a study of milk and its products, and the role they play in the diet of all ages.
- 10—Know the benefits of yearly physical examination, and encourage others to secure an annual physical examination.

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JEFFERSON COUNTY MEDICAL SOCIETY

JEFFERSON HISTORICAL COLLECTION

Mrs. John K. Freeman, Louisville, Chairman

In the past few years, the Historical Collection of Medical Biographies in Jefferson County has accumulated considerable material. We have, actually on file, 161 biographies of Jefferson County physicians. About 16 more are in the process of preparation.

However, we have a long way to go.

One reason for our present increase is the addition to the Committee of a very able Associate-Chairman, Mrs. John C Rogers. Then, too, our women are realizing, more and more, that this is their very own project. By way of example, different members have contributed personally written biographies, newspaper and magazine clippings, properly dated, the names of long-gone physicians, as clues for our Committee to trail.

As a result of a report given at a Quarterly Meeting, one member loaned us her genealogy book from which we typed the account of her doctor-relative and the names of her family's professional associates. It is needless to say that we take extra care of material such as this and return it in good condition. In this instance, as a few others, we applied to Cave Hill Cemetery Company's office for dates not given.

We have prepared an outline of 19 suggestions for the use of prospective biography writers. A few have expressed appreciation for this because activities and incidents were recalled which, otherwise, would have been omitted. Here again, Auxiliary Members have volunteered for service and typed several of these outlines for us.

The County Auxiliary furnishes us with its official stationery and stamped envelopes, which relieves the expense of our correspondence. This, too, lends a note of authority to our requests for biographical material.

Our Committee prefers all manuscripts typewritten. We make a point of being prompt in thanking each one for a contribution to our Medical History.

In the pursuit of our work, we sometimes find those who are eligible to Auxiliary Membership. These names we turn over to

our Membership Chairman. She does the rest.

Our Historical Committee has received biographical material from different parts of the country. Many outside friends who hear about our work tell us about who-knows-who, 'til we often get beyond the confines of our native soil. Such a lead took us last Fall to Mississippi where we expected only one biography. But this original, after sending hers, referred us to a friend in the same city. We hastened to write the address given and promptly received a very cherished manuscript of a pioneer physician in Jefferson County.

Of late, we have decided to catalogue all our material. We will then send it to the State Auxiliary Chairman of Historical Collections, retaining only the listing or catalogue of what we have done.

Our committee is constantly getting together in "consultation." Sometimes we have to be the "patient," especially when we have to wait so long for material that has been promised. However, we are happy again when it does come. There are two of us—a sort of Sherlock Holmes and Dr. Watson combination. The latter, though, is averse to publicity, but quite contrary to the literary reference—is really the "sleuth" of the team.

And, now, fellow Auxiliary Members, attention!

Have you an active Historical Collections Committee in your County? If not, we hope you will, soon. It is tremendously interesting to ferret out these hidden records.

Would you like to help us? We need some more names of Jefferson County physicians whose biographies have not been written and you can do us a favor which we may be able to return in like form for your County. A post card from you carrying the name of one Jefferson County doctor of the past, and, if possible, a date, will be most gratefully received. (More, if you have the information, of course.) All you need do is send a post card and it will receive our prompt attention. Mail to Mrs. John K. Freeman, 2104 W. Broadway, Louisville.

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**PROCEEDINGS OF THE
SEVENTEENTH ANNUAL MEETING OF
THE WOMAN'S AUXILIARY
to the
KENTUCKY STATE MEDICAL ASSOCIATION
Held at**

Bowling Green, Ky., September 11-14, 1939

(Continued from October, 1939 Issue)

ADDRESS OF WELCOME

Mrs. L. O. Toomey, Bowling Green

Madam Chairman, Members of the Woman's Auxiliary to the Kentucky State Medical Association and Visitors:

Time can cut odd patterns for fate to mold in the shaping of human destiny. None is more odd to me than the fact that I should here today, welcome you in behalf of the Warren County Auxiliary. Personally I have looked forward to this moment with pleasure, for it affords me the opportunity of expressing the sincere gratitude of two strangers, who, through the necessity of procuring food, nine years ago found the Kentucky State Medical Association and its Auxiliary a haven. You were not conscious of the gap you bridged between the opening of the Training School and the College; that your presence here caused the College dining room to open a week early, providing the only eating place on or near the hill, may not to you seem unusual. You did not have to walk from the hill to town and back again three times a day in a given length of time. I doubt you would have come, faced with such necessity. The incident could only have happened then and to strangers who did not know the custom of the town. That you provided for them is neither here nor there save by some strange turn in times odd pattern, I was destined to be one of the strangers you took in.

By sheer fate the incident occurred, yet the knowledge of the comfort you brought me then has quickened my anxiety for your coming now and turned what might have been a duty into a pleasure.

The Warren County Auxiliary organized this spring for the sole purpose of entertaining you. We wanted to know you better, so we asked you to come for a little visit. It has been our desire to make for you a home where you can rest and relax, where you can meet old friends and enjoy the making of new ones. To find for you a convenient and comfortable workshop in which to repair, to create or to bring to completion one or all of the proposed goals so set forth by this useful organization.

We could think of no place more fitting than this Western Kentucky State Teachers College whose long years of experience in just such things has given it a sympathetic

understanding and whose high command of the hill in service, growth and beauty was once but a faint ray of hope in a man's dream. (Late Henry Hardin Cherry).

Having planned thus we turn to you who have come from far and near for without your help in advising us and without just the sheer comfort of your presence here, all our efforts might have been in vain. We hope that with the passing years you may look back as I have done with pleasant memories. It is with high hope to the Seventeenth Annual Convention, honoring Charles Harvey Spilman, that we, the Warren County Auxiliary, welcome you on this the twelfth of September, nineteen hundred and thirty-nine.

RESPONSE TO ADDRESS OF WELCOME

Mrs. George Bradley, Elizabethtown

Mrs. Toomey:

Your cordial words of welcome have touched our hearts in true fellowship.

We greatly appreciate the welcome from the Warren County Auxiliary. We feel you are able to inspire us that we may do a better year's work. We feel that each one of us here wish to carry home new ideas and make more and better resolutions by which we may be able to do a greater year's work than ever before. I am quite sure every one in the audience joins with me in thanking you for this welcome.

Many have come from all parts of Kentucky to Bowling Green, the College Town. Many were here in 1930 to attend the annual meeting of the State Medical Auxiliary. I am sure you are able to find quite a few changes in the city, as well as in our Organization and its Membership.

We are all here for some purpose, the greatest of which is to learn of the many health activities of this and other cities. We hope the knowledge gained will help us to preserve the most precious thing of all, human life.

Again we wish to thank you, in behalf of your City and Auxiliary, for the welcome extended to us one and all.

STUDY CLASS*

Mrs. S. H. Flowers, Middlesboro, Presiding

In giving this period to the consideration of the objectives and aims of the Public Relations program of our organization, Mrs. Layman, your Program Chairman, has followed the advice given by our National Advisory Council, which "urged that Public Relations be given special attention this year."

Mrs. C. C. Tomlinson, last year's National President of the Auxiliary, said:

*Prepared by Mrs. Jos. E. Wier, State Chairman Public Relations, unable to be present because of an accident.

"One of the important functions of the Auxiliary is to help create and maintain contacts between the medical profession and the public. Each member of the Auxiliary should be well informed on problems facing the profession so that she may be in a position to discuss calmly and intelligently, the various health questions, which arise in any organizations."

In entering health discussions, you need never fear boring your listeners. Everyone is interested in his or her health, and as everyone of you know by experience, your friends seem to think you get medical knowledge by some process of absorption from your doctor husband. Far be it from us to enlighten them to the fact that about all we learn is how to wait gracefully, and how to keep meals hot for hours. I attended the World's Fair last month, and where do you think I saw the largest group of people excepting the large groups gathered at the General Motors' Building? I saw them in the Public Health and Medical Building where young and old were displaying keen interest.

This year, when so much misinformation has been given out by well-meaning groups on Medical Problems, that the Public Relations function becomes increasingly important, it would be well for us to plan in advance what we want to accomplish. A public relations program should be planned so as to—

- (1) Create good will for the organization.
- (2) Build a public opinion that is correctly informed toward the aims of the Medical Profession; in other words, educate the laity in the value of organized medicine.
- (3) Produce confidence in the integrity and ability of the Medical Profession to fulfill its obligations to the community in which it functions.
- (4) Get acquainted with the members of your County Health Department. Learn from them just what their program is, then give that program your full cooperation.
- (5) Popularize good health radio programs. Listen to as many as you can, and if you like them, tell your friends and ask them to listen.
- (6) Assist in Health Institutes and Clinics.
- (7) Express written disapproval to makers of films destructive to the patient's confidence in the physician.
- (8) Read the economic editorials in the Kentucky State Medical and the A.M.A. Journals. These editorials will keep you thoroughly informed; also the editorials in Hygeia, the magazine that should arrive at every Doctor's home and every Doctor's office every

month. These editorials will aid you in your discussion of this important subject with the lay groups.

It is extremely important that you familiarize yourself with the State Medical Association's economic program and equally as important that you understand the attitude of the American Medical Association on this important subject.

Dr. Bauer, Director of Health Education of the American Medical Association told the Women at San Francisco to be wise, be subtle, give without making others conscious of your giving. A well-informed woman can correct a good many misstatements or half-truths, and plant many thought provoking sentences on her morning trip to the grocery, around the bridge table, and at her various meetings. It is our duty, as the Doctor's wife, the woman closely related to the man to whom the whole community looks for guidance in its health problems, to be well-informed at all times, on all subjects relating to the health and welfare of our community. One of the most thought provoking statements made by Mrs. Tomlinson at the meeting in St. Louis was: "There's no limit to the possibilities of 20,000 women." We have a goodly number of that 20,000 in our own State of Kentucky. If each will keep herself well informed on the problems our medical profession faces today, this problem can be more easily solved.

You know, I feel that we, the wives of the Doctors, are after all their Individual Department of Public Relations. Many times they are judged by what falls from our lips. You remember, of course, the beautiful verse—"I shot an arrow into the air—It fell to earth I knew not where." Let's inform ourselves, cover our arrow with the whole truth, then, shoot it knowing that it will fall with its piercing message into the hearts of those who anxiously await the knowledge that the doctor's wife can give.

This is a rapidly changing world and along with the multitude of changes taking place each hour, each day, it is not strange that medicine has been drawn into the maelstrom. We are in the process now of being whirled around in the pool of questions of doubt and of wonder. But there is no reason for fear. We must simply keep ourselves well informed, speak truthfully and fairly at all times and depend wholly upon our advisory councils to bring the Ship of Medicine back again to its home port.

In the world of romance and roses, "Love is the thing." In Tin Pan Alley where modern music is born, the "Song" is the thing" and in the lives of each of us the

"Doctor is the thing." Therefore, our greatest ambition, yours and mine, is to be of the greatest possible service to him and to the people he so faithfully serves.

We, the members of the Woman's Auxiliary to the Kentucky State Medical Association, weave our lives into the lives of our doctors much as some great weaver carefully threads a brilliant motif into the pattern coming into being on his trusty loom.

Because of that close relationship you and I can be of great service in the promotion of good health objectives in the community in which we live. We can proudly and capably pave the way to cleaner, healthier living. The community as a whole looks upon its respected and beloved doctor's wife as a person who knows just a little more than any one else about "health problems" for the reason that her life is so closely woven into the life of him who so faithfully serves them. So it is our duty to educate ourselves to the great positions of being the Doctor's wife with no less seriousness than he prepares himself for a major operation.

One of the objectives set forth in the beginning of this talk was that we cooperate with the State Department of Health and its County Units in their Health Programs. The State Department of Health in cooperation with the Kentucky State Medical Association and the Federal Government is waging a war on Syphilis. A new law is to go into effect in 1940 and because of its effect on the whole State, and because of the importance of this Syphilis drive, we have asked Dr. John R. Pate, Director of the Bureau of Venereal Disease to talk to us on what we, as Doctors' wives, can do to help in this timely understanding.

TB-LETS

Tuberculosis kills nearly twice as many girls as boys in the age group between 15 and 25.

The Kentucky Tuberculosis Association supplies "What You Should Know About Tuberculosis" free of charge to anyone writing for it.



HOW THE AUXILIARY MAY HELP STAMP OUT SYPHILIS—THE GREATEST ENEMY OF YOUTH

John R. Pate, M. D., Louisville.

To bring syphilis under control and eventually to stamp it out is the object of the present intensive campaign being waged by the United States Public Health Service, in cooperation with State and local departments of health. In the successful prosecution of this campaign, the active assistance of all elements of the population is absolutely essential.

The Woman's Auxiliary to the Kentucky State Medical Association can greatly aid the medical profession and the various health agencies, governmental and voluntary, in accomplishing the end sought. They can:

- 1—Learn the facts about syphilis.
- 2—Help to educate the people as to the nature of the disease, its cause, methods of transmission, proper treatment and the measures necessary for its control.
- 3—Help to impress upon the public that syphilis belongs to the great family of communicable diseases and should therefore, be subjected to the same laws and regulations as apply to the control of all other communicable diseases, such as measles, smallpox, diphtheria, etc. Particularly can they help to emphasize the demonstrated fact that a large proportion of syphilitic infections are innocently contracted and that, therefore, anybody is subject to attack at any time.
- 4—Help the County Medical Societies and the Health Agencies to educate the public through full and intelligent use of both the printed and the spoken word and motion picture films, etc.
- 5—Help to bring the subject of syphilis out of the dark corners, discuss it frankly and openly and expose it to the full light of publicity as we have done with tuberculosis.
- 6—Help to eliminate the old impression that syphilis is a sin and a disgrace. The truth is that syphilis is a disease, which may attack the innocent as well as the guilty. The only sin or disgrace in connection with it is that, knowing the cause, how to diagnose and treat it, we have not long ago reduced its prevalence to an irreducible minimum. An educated public is the strongest protection against syphilis.
- 7—Help to make both clinical and serological examinations for syphilis a routine

procedure when consulting the family physician by explaining this need.

- 8—Help to inform the public as to the suffering, individualism and even death that follow in the wake of syphilis. They can help to impress upon the public the danger of self-treatment or treatment by quacks. We have specific drugs for the treatment of the disease, but these drugs can be safely administered only by competent physicians.
- 9—Support all legislation and laws now on the statute books that have for their purposes the prevention and eradication of syphilis, such as the Kentucky Pre-Marital Law which becomes effective March 1, 1940.
- 10—Help to bring home to the people of the State and the country the enormous economic burden imposed by venereal disease. Treatment of this disease alone is costing the people of the United States a half billion dollars a year. A similar expenditure devoted to prevention would, within a few short years, avail to bring syphilis under measurable control.

Approximately 100,000 deaths from this disease are occurring in the United States every year. Because of syphilis an aggregate

of over a million years of life expectancy are lost in this country every twelve months. More than a million new patients, infected with early syphilis, are brought under treatment each year. In Kentucky alone it is estimated that more than 100,000 cases of syphilis now exist. Approximately 12,000 hitherto unrecognized cases are being brought to light in this State each year. How much does syphilis cost Kentucky?

The campaign for control of syphilis is directed to the saving of the health and lives of American men and women. The Woman's Auxiliary to the Kentucky State Medical Association can do much to promote the success of a campaign in which they, as mothers, have a direct and special interest. It is the youth of the State among whom syphilis takes its greatest toll.

Editor's Note—The contributions of Mrs. George Bradley, Elizabethtown, on How to Make Children Eat More Vegetables and Less Candy, and Mrs. E. H. Heller on The Cancer Campaign followed. No copy, however is available.

I'm sure we have all enjoyed these interesting, instructive, and entertaining features. Thank you, each of you, for your extremely beneficial contributions.

Now let's go back to some concrete objectives that you and I can take back to our Auxiliary for the forth-coming year.



- 1—Our National Public Relations Chairman suggests a Public Tea in every County as a good way to let Women's Clubs in your community know that you can supply them with literature and speakers on health questions. Assure them that you are willing to aid them in every way.
 - 2—Invite the President or a Representative from each club or organization in your county and have a trained speaker from your County Medical Society speak on the National Health Program. Ask your Advisory Council to keep in mind speakers for these occasions.
 - 3—Ask the Women's Clubs to cooperate with you in a campaign to inspect all toilets in your community. If they are in an unsanitary condition, notify the proper authorities.
In case of toilets in filling stations, write the Company sponsoring the station. This would greatly aid the venereal disease fight.
 - 4—Inspire the Clubs in your community to acquaint themselves with the conditions in public eating places. Find out if dishes are sterilized—We have a State law requiring that all dishes be thoroughly disinfected. That law will be enforced if the women of your community will stand behind it.
 - 5—Continue to interest yourselves in the school health programs. Five reports have come in from various counties and I sincerely hope you'll keep the good work going.
 - 6—Make a study of actual body requirements for the production of body building materials. Make a study of protective factors, incorporated under vitamins, roughage, etc.
- Make a study of some essential outstanding foods:
- A.—Milk and milk products. The role they play in the diet of all ages.
 - B.—Vegetables and fruits. Their place in the diet.
 - C.—Animal Foods. Under this heading, a whole lot of time could be spent because of the close relationship they bear the general waste products of the body.
 - D.—A Summary. Incorporating all of these fundamental factors with their specific relation to the normal diet of the adults. Also, the responsibilities which the home has in maintaining adequate nutritional functions.

These are only a few of the things we can really do. For other and better objectives in the promotion of health by the Doctor's wife

in your community, I refer you to your own fine, capable County Auxiliary Officers whose heads are already together on enthusiastic plans for the future.

REPORT OF PRESIDENT ELECT

As your President-elect the past year, it has been my great pleasure to work with the President, Mrs. Harlan V. Usher. I have asked her opinion and had her approval on any move I have made.

I attended the mid-year Board Meeting in Louisville, January 19, 1939, where we heard reports from the Counties.

The President, Mrs. Usher, was unable to attend this meeting because of the illness of her mother, so the First Vice-President, Mrs. John Blades, Butler, presided in her place.

After luncheon at the Brown Hotel, I was invited to Mrs. A. T. McCormack's apartment, where she and Mrs. Stephen McCoy gave me helpful information for my program for this State Medical Auxiliary Convention to be held in Bowling Green, Sept. 11-14, 1939. Shortly after my arrival home from this meeting I began my correspondence to obtain speakers for this program. This has been my chief work.

I have helped with programs on Health Education in my own County.

The year of preparation for this office of President is one full of opportunity, and is a splendid period of training for that office.

May I express my appreciation for the kindness, and interest manifested in my behalf of Mrs. Usher and other members of the Executive Board. It has been a pleasure to work with them.

Respectfully submitted,
(Mrs. R. T.) Margie L. Layman

REPORT OF ORGANIZATION COMMITTEE

The Organization Committee is very happy to report that we know that new Auxiliaries to the County Medical Societies have been formed this year. Immediately after the Annual Meeting last year each Vice President was assigned a certain number of counties where we hoped to organize Auxiliaries.

We wrote to the Secretary of the Medical Society of these counties. Only two answers were received and they were unfavorable to organization. However through the efforts of several who were interested in organization, personal contacts have been made and we are able to make the following report:

(1) In District No. 2, Mrs. Clifton Richards, Vice President.

Mrs. Reason T. Layman and Mrs. Clifton Richards organized the Warren County Aux-

iliary with Mrs. G. M. Wells, 1320 Edgewood Drive, Bowling Green, President.

(2) In District No. 3, Mrs. L. S. Hays, Louisa, Vice-President.

Mrs. L. S. Hays organized the Lawrence County Auxiliary and is President.

(3) In District No. 4, Mrs. John Floyd, (Richmond), Vice-President.

Mrs. Wallace M. Chapman, Beaumont Avenue, Harrodsburg, organized the Mercer County Auxiliary and is President.

Mrs. Floyd personally contacted persons eligible for Auxiliary membership in Boyle, Estill and Fayette Counties. She received many gracious promises that will, perhaps, become effective later.

(4) In District No. 1, Mrs. Jos. Barr re-organized Franklin County and is President with 21 paid members.

There are now fourteen Auxiliary organizations representing thirty-one Counties in the State.

Respectfully submitted,
(Mrs. John M.) Anna Blades.

REPORT OF THE COUNTY AUXILIARY ACHIEVEMENTS PROJECT FOR 1938-1939

	Points
Franklin County	110
Graves County	95
Hardin County	157½
Jefferson County	85
Licking Valley	32½
Madison County	55
Marshall County	15
Mercer County	5
Sampson Community	65

Hardin County, home of our in-coming President, won the Blue Ribbon for the greatest achievement this year.

Respectfully submitted,
(Mrs. S. C.) Mathilda McCoy.

ANNUAL REPORT OF THE EDITOR Kentucky Medical Journal—Part II— Woman's Auxiliary Section

And—Now, we are eight!

In September, 1931, at the close of the Annual Meeting in Lexington, the Advisory Council first made the generous suggestion, in fact, requested the Woman's Auxiliary through its Executive Board, to undertake the publication of a quarterly supplement, all its own, to the Kentucky Medical Journal. Amazed and delighted with the compliment of this request, yet quite overwhelmed by this surprising proposition, the Executive Board, sensing the weight of this new responsibility, declined the offer. But—the confident and encouraging attitude of the Advisory Council—Doctors: W E. Gardner, A. T. McCormack,

V. A. Stilley—prevailed and—buoyed-up the timid spirits of our President, Mrs. George A. Hendon, and her Executive Board, to the point of trying. And with the October issue now on the press, we have completed eight full years of publication, 32 separate issues.

What of the future?

Shall we go on?

How can we do otherwise, since the Kentucky State Medical Association requests it? With the confidence and the assistance given us through our Advisory Council and with the splendid co-operation of Auxiliary Members, themselves, success awaits our efforts.

For the past year, we have enjoyed a gratifying sense of security from the Contingent Fund of \$500.00 allowed us by the Kentucky State Medical Association should we need help to pay our bills. Fortunately, this has not been needed, to date, due to the increase in Advertising Contracts secured by the new member of the Executive Staff, the Advertising Manager, Mrs. Jos. E. Wier, in whose report you will be interested. Mrs. Wm. H. Emrich, our very efficient Business Manager the last five years, has an interesting report on our finances.

Will every member please familiarize herself with our financial condition by studying Mrs. Emrich's report and the report of the Auditor, pp. 129-133 in the October issue?

The regular four quarterly issues have been published, totaling 148 pages, notwithstanding illness and frequent long absence from home on the part of each member of the Executive Staff—the Advertising Manager, the Business Manager and the Editor—each of whom assumed responsibilities of associates as necessary. Often we laughingly acknowledged that we represented the lame, the halt and the blind, dependent each upon the other. Generous co-operation from other Auxiliary members and friends, particularly from Mrs. J. G. Denhardt, Bowling Green, has made regular publication possible, notwithstanding some very real difficulties.

The Index, found in the October issue, shows contributions from 30 Members, two physicians and 11 other friends. This includes seven poems and 13 illustrations that have been published. Eight of the illustrations have been made available to us through the courtesy of generous friends: Louisville Courier-Journal, The Filson Club, Hygeia, Kentucky Tuberculosis Association, Louisville Free Public Library.

Outstanding contributions are, perhaps:

Achievement Project

County News Reports

Doctors Day Radio Program—Dr. Thomas Walker.

Jane Todd Crawford Memorial
Junior's story—The Holey Dark
Medical Economics
Poems

Question Box on Child Health and Welfare
Sight Is Might—Mama Linda Sees David
Tuberculosis Series

Promptness in submitting material for publication is increasing. For this we are grateful. Articles should be in the hands of the Editor at least six weeks, at the very latest, one month, before the date of publication, that is—before December 1st for the January issue; before March 1st for the April issue; before June 1st for the July issue; before September 1st for the October issue. It takes time to edit and prepare each item after it arrives on the desk of the Editor.

To our President, Mrs. Usher, to each of the Officers and Committee Chairmen who carry regular Messages or Pages in the Quarterly, to the County Presidents, Secretaries and Publicity Chairmen who send in News Notes and to each of our contributors the Editor extends grateful thanks and appreciation. The prompt co-operation of all these important builders of the Woman's Auxiliary Section of the Kentucky Medical Journal is responsible for the ability of the Executive Staff to produce the publication of the Quarterly regularly.

Respectfully submitted,
(Mrs. A. T.) Jane Teare McCormack,
Editor.

REPORT OF HISTORICAL COLLECTION

During the last year your Chairman of Historical Collection has written fourteen letters, some to the families of those who have passed away, others to Secretaries of County Societies asking for biographies. To date, have not had any word from any of them, but two good friends of the Auxiliary have sent in some interesting material.

An autobiographical sketch of Dr. S. T. Purcell, contributed by Mrs. C. C. Turner, Glasgow, Kentucky, and the biography of Dr. Thomas L. Newberry, contributed by Mrs. C. C. Howard, Glasgow, Kentucky

In the various papers, we have noted the following physicians who have passed away this year: Dr. Edward E. Bickers, Eminence; Dr. Thomas C. Nichols, Falmouth; Dr. Silas O. Witherbee, Middletown; Dr. J. C. Dodson, Richlieu; Dr. Charles G. Daugherty, Paris; Dr. Horace Luten, Fulton.

We cannot say if all these were physicians, since some we do not know but must leave them all to the historian.

Respectfully submitted,
(Mrs. Van A.) Mary Coleman Stilley.

REPORT OF HYGEIA

Early in the year, fifteen letters were written to as many different Counties asking for Hygeia Chairmen.

From this number, twelve appointed Chairmen and their names were sent to circulation manager, Mr. F. V. Cargill.

Cards were sent these twelve Chairmen asking for reports. We have had only two replies, one from Pulaski reporting a talk on Hygeia before the P. T. A. and four subscriptions.

Sampson Community Hospital District reports a talk before P. T. A. and twenty-seven subscriptions, five of which are for public schools and one for public library.

From Mr. Cargill's report we find the State has more than doubled the subscriptions since last year. This is encouraging, and since we had some inquiries about Hygeia we feel sure it is slowly but surely getting before the public.

Respectfully submitted,
(Mrs. C. C.) Florence Turner.

REPORT OF THE DOCTORS SHOP

For the benefit of any who might be here who know little or nothing about the location and history of The Doctor's Shop, I will say, it is a small brick building in Harrodsburg, Kentucky, near the entrance of Pioneer Memorial State Park. In this park is a monument recording it to be the first permanent Anglo-Saxon settlement in the West, by name Fort Harrod, built in 1774. The Doctor's Shop is located next door to the Mansion Museum, a museum showing the history of Kentucky, visited by thousands annually. This mansion was the home of Major James Taylor and his descendants for over one hundred years.

The small brick building next door, now known as the Doctor's Shop was then his law office. It was presented to the State by the Pioneer Memorial Association of Harrodsburg. Then the State requested the Kentucky State Medical Association to act as custodians and furnish this building as a memorial to the pioneer doctors of Kentucky. It was dedicated as the Doctor's Shop with appropriate ceremony June 21, 1934.

The Woman's Auxiliary has been requested by the State Medical Association to furnish the Doctor's Shop appropriately, serving under the supervision of the Advisory Council of the State Medical Association. Recently it has been redecorated and is now open.

The Mercer County Auxiliary has been very helpful in promoting the shop. They hold their meetings there and keep it

open on holidays. Two of their members, Mrs. Greene Johnson and Mrs. Condit Van-Arsdale, who live in Harrodsburg, are on my State Committee. This Auxiliary donated the Venetian blinds, antique chairs, andirons; had the bookcase painted and a sign erected in front of the shop. They were cordial, energetic hosts to the Jefferson County Committee and its President when we spent a day in the spring at the shop. With their help we labeled and put the things we have collected in beautiful walnut showcases procured by Mr. Bailey Wootton, State Park Commissioner. Among the pictures they helped us hang were pictures of Dr. Ephraim McDowell and Jane Todd Crawford, participants in the first successful ovariectomy; a large silhouette of Dr. Thomas Walker, the first white man to penetrate and explore this part of our country and build a house; and a large reproduction of Rembrandt's "The Lecture on Anatomy." A very large picture "The Doctor" is seen as you enter, and on the side walls several small frames including a patent on hog cholera cure and some diplomas. The large picture named "The Doctor," was given by Dr. and Mrs. J. F. Dusch of Louisville.

Among the books we have "Morbidity Anatomy" printed in 1808, and a Pharmacopoeia of the United States, over a hundred years old.

Twelve old style bottles, blood letting instruments, trephining sets, wooden braces, breast pumps, medicine cases, and cant-hook dental forceps are some of the interesting things shown in our cases. On one of our antique chairs hang saddle pockets used by Dr. Terrell Lowe Fuller, a Kentucky doctor, while serving three years as a surgeon in Peru.

We have plenty of room for more rare old books in our newly-painted book case. Can you think of something in your possession rare or old enough to be added to our collection? If so, please take it to the Shop or send it to me. If the Shop isn't open, inquire next door at the Mansion Museum. We would like suggestions for a plan whereby the Shop can be kept open every day for visitors.

Respectfully submitted,

(Mrs. J. B.) Virgie Lukins.

What we have done for ourselves alone dies with us. What we have done for others and the world remains and is immortal.—Albert Pike.

REPORT OF PUBLIC RELATIONS COMMITTEE

The former Chairman of the Woman's Auxiliary to the American Medical Association, Mrs. Henry Raile, has sent three interesting pamphlets regarding plans for Auxiliary meetings, and for use in lay meetings. She urged us "to create concern for the manner in which Health Education is being delivered. Quality of delivery, not quality of material is our present problem, for today. Little or no effort is required to obtain the most select and painstakingly prepared Health material. These pamphlets I have forwarded to the County Auxiliaries.

The Woman's City Club of Louisville asked me to plan their Health programs. Arrangements were made for Louisville physicians to speak at these monthly meetings.

Talks on Syphilis, Cancer and Tuberculosis were prepared for use by any Auxiliary requesting same.

Your Chairman attended the Ephraim McDowell Memorial Home Dedication at Danville, and the Public Relations Committee Meeting of the American Medical Auxiliary at St. Louis.

Literature was sent to a County Auxiliary on the Socialization of Medicine.

Reports of Public Relations work over the State are as follows:

Breathitt County:

Dressed dolls for Christmas boxes.

Observed Jane Todd Crawford Day with program as outlined in Quarterly.

Sponsored Cancer Drive in April and sent State Commander, Mrs. E. H. Heller, check for \$22.18.

Observed Hospital Day at Bach Memorial Hospital. Each visitor bringing gift of linen or money.

Distributed clothes to flood sufferers.

Planning Picnic with speaker on Public Health Work.

Hardin County:

Assisted Women's Clubs in sponsoring Crippled Children's Clinic.

Observed Jane Todd Crawford Day by sewing for Hazelwood Sanatorium and the indigent T.B. patients of Hardin County. Also remembered each of these with toilet articles, fruits and food.

Furnished milk to underprivileged families for their children.

Acted as Chairman for Hardin County in T.B. Christmas Seal Sale. Collected \$272.00.

Helped to sponsor Public Health talk at Court House for white and colored.

Gave talks at Elizabethtown P. T. A.

Jefferson County:

This report is a testimonial to the friendliness and cooperation in the Auxiliary. Miss Grace Stroud, the Chairman, was ill and her work was carried on by other Members. Achievements listed as follows:

Health Talks.

Stimulated interest in the Health Talks given by the physicians at the monthly meetings of the Study Class.

Attended meetings of a few other organizations.

Assisted with the sale of tickets to the summer opera.

Licking Valley:

Venereal Diseases and Tuberculosis talks sponsored in the County schools.

Dressed dolls for Christmas community boxes.

Observed Jane Todd Crawford Day with program outlined in Quarterly.

Sponsored Cancer Drive in April and sent Mrs. E. H. Heller check.

Graves County:

Sponsored talks on Venereal diseases and Tuberculosis. All schools in the County were reached.

Observed Jane Todd Crawford Day with all day meeting. Luncheon served. A memorial service was held in the afternoon.

Christmas toys were packed to send to nursing Frontier Center at Hyden, Ky. Individual donations were made to the Jane Todd Crawford Memorial Fund.

Doctor's Day program was given.

Mrs. Usher gave the Life of Dr. Thomas Walker. This speech was printed in the Mayfield Messenger.

Incidents were given that happened in the lives of several former County physicians.

A few talks were given on Venereal Diseases in the schools.

Franklin County:

Worked in Cancer Drive.

Planned fine community meeting, but had to postpone, will have it later.

Asked each organization in County to observe at least one Health Day a year.

Sampson Community:

Sponsored two talks on Cancer by Dr. C. C. Turner before Clubs in city.

Lecture on Venereal Disease.

Talk by Health Nurse on Crippled Children and what the Crippled Children's Commission was trying to do.

Tuberculosis programs were given. Linens and Christmas gifts given to patients of this County.

Seventeen Christmas gifts were sent to Waverly Hills Sanatorium. Observed Doctor's Day by putting up signs against spit-

ting on streets. Aided teachers by giving packages of material for first aid; and putting article in the Manual for Rural Teachers on Prevention and Care of Contagious Diseases.

Respectfully submitted,

(Mrs. Jos. E.) Hilda Wier.

REPORT OF RADIO COMMITTEE

December 13, Jane Todd Crawford Day, a dramatization written by your State Radio Chairman was broadcast over the station in Salt Lake City, Utah, over WLW, in Cincinnati, Ohio and repeated for the second time over WAVE in Louisville.

This same dramatization was read by request before the Louisville Branch of the National League of Pen Women, and before the Scribbler's Club, a branch of the University Women.

The same dramatization was chosen by the Public Relations Chairman of the Woman's Auxiliary to the American Medical Association for distribution all over America. I am assured that through the loud speaker of our radios we will hear this dramatization broadcast on December 13th from all over the country. Mrs. Henry Raile, 19 So. Wolcott, Salt Lake City, says: "I have had several complimentary letters concerning this radio play and hundreds have been mailed throughout the country."

Distribution of this radio dramatization was made at the Southern Medical Association Meeting by our Jane Todd Crawford Chairman, Mrs. A. T. McCormack, whose inspiration led me to write the dramatization.

Doctor's Day, May 13th, was celebrated with a round table discussion of Dr. Thomas Walker, the first white man to build a house in the State of Kentucky. This program was broadcast over WAVE on that date, with State Officers of the Woman's Auxiliary taking part in the program.

Your State Radio Chairman had the pleasure of serving with Mrs. E. H. Heller, State Commander of the Women's Field Army for the Control of Cancer, at the official opening of the "White House" in Liberty Park, Louisville, in April. This opening was broadcast over WAVE.

Your State Radio Chairman is pleased to report that since January 1st, she has had the distinction and honor of serving as Supervisor of Health Education by Radio for the Kentucky State Department of Health. A series of programs were written and presented over WHAS and the response from our own State, and that of fifteen other States was most complimentary to the sin-

cere efforts made by the State Department of Health in this new field of endeavor. These programs will continue beginning September 2nd. Watch for the announcement in the radio column of your daily paper.*

Respectfully submitted,
(Mrs. S. H.) Viola Cawood Flowers.

*Editor's Note. The war in Europe has interfered with these plans.

LOUISVILLE APOTHECARY, Inc.

"Ask your Doctor" about this "Prescription Drug Store"

337 W. Broadway Louisville, Ky.

T B LETS

The tuberculosis patient who is careful about the disposal of his sputum is not dangerous to others. He will not spread the disease.

The burden of tuberculosis is borne by the tax payer. We can save money by fighting tuberculosis.

Take advantage of all protective measures against Tuberculosis when they are offered you. Christmas Seal income makes these measures available to all.

"I am all run down," said the old clock, and it took a long rest. Rest is the cure for Tuberculosis.

WIDE WALLS

"Give me wide walls to build my House of Life—

The north shall be of Love, against the winds of fate;

The south, of Tolerance, that I may outreach hate;

The east, of Faith, that rises clear and new each day;

The west, of Hope, that e'en dies a glorious way.

The threshold 'neath my feet shall be Humility;

The roof—the very sky itself—Infinity.

Give me wide walls to be my House of Life."

—Author Unknown.

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Louisville, Ky.

WAbash 2942

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LOUISVILLE, KY.

Shawnee 5860

2910 N. Western Parkway

Homogenized Milk

(With Vitamin "D" Added)

A BETTER FOOD FOR ALL



1. What is Homogenization?

A method used by modern dairies throughout the United States, whereby the butterfat globules (cream) in regular pasteurized milk are broken down. This permanently distributes the cream throughout the entire bottle of milk.

2. Does this milk produce a softer curd?

Yes. These globules of fat after homogenization are naturally much smaller and form a smaller, softer curd during the digestive processes. This permits quicker digestion.

•Consult your husband.

PHONE JACKSON 4201

EWING
VON ALLMEN
DAIRY PRODUCTS

Louisville, Ky.

KENTUCKY MEDICAL JOURNAL—PART II
WOMAN'S AUXILIARY SECTION

Medical School
APR 17 1940
University of California



PIONEER WOMAN

Photograph, Courtesy of the Ponca City, Oklahoma, Chamber of Commerce.

APRIL, 1940

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(With Vitamin "D" Added)

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KENTUCKY MEDICAL JOURNAL—PART II

WOMAN'S AUXILIARY SECTION

Published Quarterly Under the Supervision of the Advisory Council

Vol. IX, No. 2

Bowling Green, Kentucky

April, 1940

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PRESIDENT'S MESSAGE

Mrs. R. T. Layman, Elizabethtown

Welcome, Spring, adorned by Nature with all your freshness and beauty. We are glad to say goodbye to winter with its cold and snow. I hope Spring brings us renewed energy along with new visions for greater achievement during the remaining Auxiliary year.

I hope all County Auxiliaries are carrying out our plans for the year's work and trying to win the Blue Ribbon award given for greatest success in our Achievement Project.

Remember that State dues are to be sent to our State Treasurer, Mrs. Luther Bach, 325 Taylor Avenue, Bellevue, at the close of each County or District fiscal year. Please be prompt in payment.

I want all County Presidents to send me by May 1st a report of work to date so that we may have a report to give at the National Auxiliary Meeting in New York City, June 10-14, 1940. I hope Kentucky will be well represented at the National Convention, headquarters in Hotel Pennsylvania.

Our National President, Mrs. Rollo K. Packard, reminds us that individual members of the Auxiliary are urged to join various clubs so that they may be informed of the activities of the Federated Clubs and other organizations.

It seems, consequently, of increasing importance that State and County Auxiliary Members acquaint themselves with the Constitution and By-Laws of their County, State and National Auxiliary.

Friday, April 19, 1940 has been designated for Doctors Day observance. Doctor George Hart, the first practicing physician in Kentucky, has been named as the physician to be especially honored on this day. (See page 44).

Please do not forget our State Chairmen. Send them your reports so your county can be given credit for all your work in their projects. And if you need advice or help, write your State Chairman and she will be glad to assist you. I am always glad to receive reports on what the Counties are doing. I hear some are getting new members. Good work! Do keep on “keepin’ on” and let us try to double our membership before the State Annual Meeting in Lexington, September 16-19, 1940.

As we go to press, news comes of the passing, March 27, at St. Anthony's Hospital, Louisville, of Dr. R. T. Layman, husband of our State President. Our love and sympathy are with Mrs. Layman and her family.

-:- EDITORIALS -:-

LORD, MAKE ME AN INSTRUMENT!

Lord, make me an instrument of Thy peace!
 Where there is hatred, let me sow love.
 Where there is injury, pardon.
 Where there is doubt, faith.
 Where there is despair, hope.
 Where there is darkness, light.
 Where there is sadness, joy.
 O Divine Master, grant that I may not so
 much seek
 To be consoled as to console,
 To be understood as to understand,
 To be loved as to love,
 for
 It is in giving that we receive,
 It is in pardoning that we are pardoned.

—Anonymous

LEADER DIES IN ACTION

With deep regret, we record the death of Mrs. E. H. Heller, Louisville, State Commander of the Woman's Field Army, American Association for the Control of Cancer, who was killed in an automobile accident on the Versailles Road, six miles east of Frankfort, at noon, Monday, March 18, while alone on her way to a meeting in Lexington for the purpose of advancing the Annual April Drive against Cancer.

AUXILIARY MEMBERS ATTENTION!

The Annual Meeting of the American Medical Association and Woman's Auxiliary will be held June 10-14, 1940 in New York City. Auxiliary headquarters will be at the Pennsylvania Hotel across from the Pennsylvania Railroad Station. This is within easy access of the Worlds Fair Grounds by a few minutes ride in the subway.

Attending the American Medical Association meeting this year gives an excellent opportunity of combining pleasure and profit along many lines. Early reservations are advisable.

NEW TOURIST TRADE

Do you know about the Youth Hostel Association? It began in the United States in 1934 and was instituted by Monroe and Isabel Smith at Northfield, Massachusetts. They learned about it in their European travels, for it began with the inspired idea of Richard Shurman, a school teacher in Germany, in 1910. Then it spread all over Europe. The movement extends from coast

to coast in the United States, now. But Kentucky has few, if any, hostels.

There are 11,000 passholders in this country, many of whom are teachers or students who wish to see the world. They carry cameras, as well as open minds and keen observing eyes, taking home vivid accounts and impressive pictures of what they observe. Excellent and widespread publicity results where Youth Hostel Association tourists travel.

A hostel is a clean safe place to sleep and provides food at small cost to members of the Y. H. A., all of whom have a Youth Hostel Association pass and travel on bicycles or on foot.

Lodging and meals are given at a nominal cost at these hostels supervised by house parents.

OUR NEW NATIONAL BULLETIN

Congratulations to the American Medical Auxiliary upon the publication of the new Bulletin — quarterly — formerly the News Letter.

Volume I, Number I, appeared last October, 1939, edited by Mrs. James P. Simonds, Chicago, who has so ably edited the News Letter for the past several years.

The Bulletin is a neat, 10 x 7 inch publication filled with instructive Auxiliary material, well edited and easily readable.

Congratulations also to each of us Auxiliary Members upon our good fortune in having Mrs. Simonds for our Editor!

THE S. M. A. MEETS WITH US

Kentucky will again be honored by the Southern Medical Association and Woman's Auxiliary in November.

The annual meeting is scheduled for Louisville, November 12-15, and plans for entertaining our distinguished guests are well under way.

Every Auxiliary Member in Kentucky is invited to act as hostess and help to make our guests feel that they have returned to their *Old Kentucky Home*.

Mrs. C. P. Corn, Greenville, South Carolina, is President, and Mrs. M. Pinson Neel, Columbia, Missouri, President-Elect of the Southern Medical Auxiliary.

Mrs. Corn is now emphasizing the three objectives of the Southern Medical Auxiliary.

Advertisers Contest Time Limit Extended

The Research and Romance of Medicine, Mrs. Hugh L. Moore, Chairman; The Jane Todd Crawford Memorial, Mrs. Luther Bach, Bellevue, Chairman; Doctors Day Observance, Mrs. J. U. Reaves, Chairman.

In Kentucky these Chairmen are: Research and Romance in Medicine, Mrs. C. C. Howard, Glasgow; Jane Todd Crawford Memorial, Mrs. A. T. McCormack, Louisville; Doctors Day Observance, Mrs. John B. Floyd, Richmond.

THE ACHIEVEMENT PROJECT

Mrs. H. V. Usher, Sedalia, Program Chairman

The reports from various County Auxiliaries on program work reveal the fact that they are striving to carry out the Program outlined for 1939-1940 in the Achievement Project. (See page 113, October, 1939 issue).

I feel much good is being accomplished; some of the Auxiliaries are reporting wonderful achievements. Of course, others may be doing as much, but I have no way of knowing when they send me no reports. Let me urge that every President who has not been sending in reports of Auxiliary Achievements, please write out a full report of each meeting and send me at once. Then send me an immediate report after each future meeting.

Our Program, being outlined along the lines of Health Education, should interest each individual, as well as each organized Auxiliary, for we, you and I, carry in our bodies just what the next generation is going to be. We want to help the Medical Profession distribute to all the people the results and advantages of medical research on many health problems that have been solved, and those that are being solved today, so that our conditions much improved.

We want everybody to know the best method of caring for these bodies of ours; and all should be deeply interested that they are in a healthy condition. Because, we are never going to get out of them alive!

Let us put forth every effort to have large attendance at our health meetings. Select a qualified and interesting speaker, always. Invite other people beside our membership to hear these health talks.

There will be a day of accounting for these Achievements in September and I know any Auxiliary will be glad to win the honor of excelling. Yet we do not want to work for prestige, only. We want to work for service.

OUR BUSINESS

Mrs. W. H. Emrich, Louisville.

We have been asked to extend the time for closing our Advertisers Contest. Due to the inclement weather, contestants out in the State have been unable to do much shopping, so we have changed the date of closing from June 1 to September 1, 1940 in order to give all an equal opportunity to win that new Portable Philco Radio, 1940 Model.

Rules Are Simple

1. Buy from your Quarterly Advertisers.
2. Be sure to obtain a Sales Slip with all purchases; save all Labels, Wrappers, Bottle and Jar Caps which identify our advertisers with the articles purchased.
3. All Auxiliary members in Kentucky except the Editor, Advertising and Business Managers are privileged to enter the Contest.
4. Credit will be given for purchases from the largest number of our Advertisers.
5. Credit will be given to contestants entering from the farthest points in the State.
6. Credit will be given for the greatest number of items purchased.
7. Credit will be given for the greatest amount of money spent with our Advertisers.
8. All sales evidence such as Sales Slips, Labels, Wrappers, etc., shall be sent to Mrs. Wm. H. Emrich, 842 S. Second, Louisville, on or before September 1, 1940. These must be postpaid.
9. Entries will be counted and credited to the sender and the decision of the judges will be final.
10. Awards will be announced in the October Quarterly.

We want to make a contribution to our people, for it does make a difference to the Medical Profession whether we wives understand and share in the work of our husbands. It does make a difference with us, as wives of this noble and sacrificing group, just what becomes of the American people, for our husbands are the keepers of the health of our citizens and our children marry the children of other citizens.

Let us show them that we are interested. And, inasmuch as our organization exists as an educational agency created under the American Medical Association to aid the Medical Profession in educating the laity, let us show our colors and really try to carry out this Achievement Project as our program.

MINUTES OF THE MID-YEAR BOARD MEETING

Woman's Auxiliary to the Kentucky State Medical Association, January 18, 1940

The third Mid-Year Executive Board Meeting of the Woman's Auxiliary to the Kentucky State Medical Association was held in the Brown Hotel, Louisville, at 10 A. M., Thursday, January 18, 1940, with the President, Mrs. Reason T. Layman, Elizabethtown, presiding.

The Invocation was offered by Mrs. A. T. McCormack, Louisville.

Roll Call was answered by 5 Officers, 10 Committee Chairmen and 4 County Presidents.

The Minutes of the Post Convention Board Meeting were read and approved.

The following reports were given:

Committee Chairmen:

Cancer Control—Mrs. Bernard Asman.

Hygeia—Mrs. J. W. Sams.

Public Relations—Mrs. Joseph E. Wier.

Mrs. Wier made a motion that a campaign for cold abatement be started by the Auxiliary. The motion was seconded by Mrs. Bernard Asman and carried.

Radio—Mrs. Samuel H. Flowers.

Legislation — Mrs. Eleanor Hume Offutt. Mrs. Offutt asked that she be kept informed of the pleasure of the Kentucky State Medical Association on various health bills before the Legislature. As our own Advisory Council could not be reached at once, the President asked Mrs. McCormack to telephone two Louisville Physicians, Officers of the Kentucky State Medical Association for their opinion as to the advisability of the Auxiliary attempting to help in the passage of several bills now pending. Both physicians strongly advised the Auxiliary to do nothing about either bill until notified by the Kentucky State Medical Association, Mrs. McCormack reported.

Jane Todd Crawford Memorial—Mrs. A. T. McCormack. Mrs. McCormack moved that Mrs. Offutt be appointed Chairman of a committee to collect and select furnishings for the Jane Todd Crawford Room in the McDowell Home at Danville. Moton seconded by Mrs. J. F. Shacklette and carried.

Tuberculosis—Mrs. L. E. Smith's report was read by the Secretary.

Editor of the Quarterly—Mrs. A. T. McCormack.

Business Manager of the Quarterly—Mrs. William H. Emrich, Louisville.

Advertising Manager of the Quarterly—Mrs. Joseph E. Wier. Mrs. Wier told of the request of the Advertisers in the Quarterly for another Advertisers Bazaar. Mrs. Wier moved that the State Auxiliary ask the Jefferson County Auxiliary to sponsor the Advertisers Bazaar for the support of the Quarterly. In the event the Jefferson County Auxiliary is unable to sponsor the



In the Rhapsody, you find a shoe that reflects comment - provoking smartness, yet it is nationally famous for its comfort.

This Archlock creation, brought to you by Baynham, has a soft kid vamp and quarter. Please note that the tip and heel are set off by smart patent leather. It is available in black, blue, brown and white.....\$11.00

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LEXINGTON

Magnolia



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Emmart Packing Company
INCORPORATED

Bazaar, the State Auxiliary will do so. Mrs. Samuel H. Flowers seconded the motion and it carried.

County Presidents:

Calloway County—Mrs. E. L. Garrett, Murray. A hearty welcome into the State Auxiliary and congratulations for the work accomplished in the short time since they were re-organized were extended to Mrs. Garrett and Calloway County.

Franklin County — Mrs. Joseph Barr, Frankfort.

Hardin County—Mrs. Leslie P. Herd's report was read by Mrs. George Bradley.

Madison County—Report read by the Secretary.

Samson Community Hospital Auxiliary — Report read by the Secretary.

Special Committees:

Editing Committee for a Handbook — Miss Grace Stroud, Chairman announced that although quite a bit of work had been done the Handbook was far from complete. The President requested that the committee continue its work and report at the Pre-Convention Board Meeting.

Committee to consider Ways and Means of Paying the President's Discretionary Fund—Mrs. A. T. McCormack, Chairman, announced that the Committee could not give a complete report because they had been unable to reach the Treasurer.

As a definite day could not be designated for Doctors Day at this Meeting it was recommended that the President appoint a Chairman of Doctors Day to decide on the day and notify each County President when she had done so.

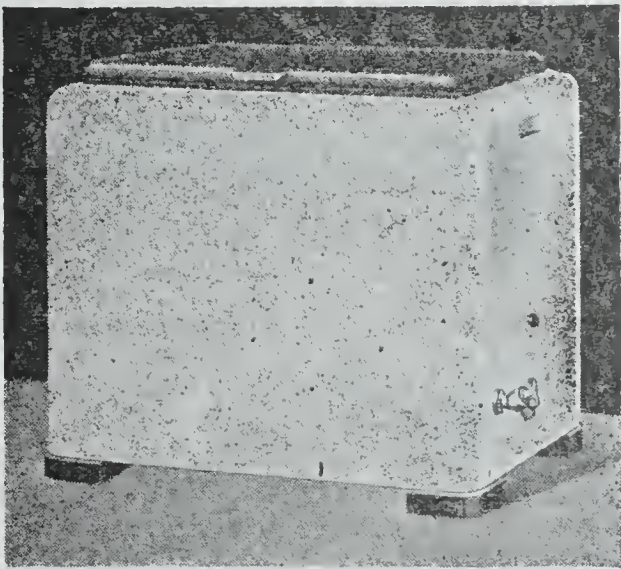
It was also recommended that the President appoint a Press and Publicity Chairman to prepare notices for the Annual Meeting and Mid-Year Board Meeting.

Mrs. Offutt moved that a committee of three be appointed to act as a Committee on Constitution and By-Laws. It was seconded by Mrs. John G. South and carried.

Adjourned at 1:50 P. M.

(Miss) GRACE STROUD,
Recording Secretary.

IN LOUISVILLE



First aid to smart entertaining and smooth-running housekeeping—the convenient new Arctic Ice Chests that cost little—hold a lot. They take the “ice bugaboo” out of entertaining—assure you all the ice you want, when you want it—give you the right kind of refrigeration space for chilling bottled beverages—leave the refrigerator free for regular food storage. A blessing on weekends, a boon at party-time—a convenience all the time.

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Made from the purest ingredients Lady Betty Salad Dressing adds just that final regal touch to those appetizing tasty salads that make their appearance at this season of the year. Have them more frequently.

o♦o



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A. B. Sawyer, Jr., President and General Manager.

DOCTORS DAY OBSERVANCE

HONORING ALL PHYSICIANS

With Special Recognition This Year on April 19, For
DR. GEORGE HARTT (HART)

The Purpose of Doctors Day is to pay tribute to our Doctors and to commemorate the achievements of all physicians who have lived in Kentucky.

DR. GEORGE D. HARTT (HART)

Mrs. John I. Greenwell, New Haven

The first Doctor who came to Kentucky was Dr. George Hartt. Among the adventurous men who sought to conquer homes in Kentucky between the years of 1773 and 1783 were William Coomes and Dr. George Hartt, who came from Maryland—the only two of whose lives there is any settled record. The late Most Rev. Dr. Spaulding in his "Sketches of Kentucky," says of these adventurous spirits: "They both came out in the spring of 1775, among the first white people who removed to Kentucky. They settled in Harrod's Station (now Harrodsburg) at that time the only place in Kentucky except Boonesborough, and perhaps, Logan's Station, where emigrants could enjoy any degree of security from the attacks of Indians."

Dr. George Hartt was a native of Ireland, in religion a Catholic and by profession a physician. Dr. Spaulding says of him, "He was one of the first physicians, it not the first of the profession, who settled in Kentucky. He lived for years at Harrodstown, where he was engaged in the practice of Medicine.

"After the great body of Catholics had located themselves in the vicinity of Bardstown, he too removed there in order to enjoy the blessings of his religion. He purchased a farm about a mile from Bardstown, embracing the site of the present burial ground of St. Joseph's congregation.

"It was he who made a present to the church of the lot of ground upon which the old Church of St. Joseph was erected. Towards the building of it, one of the oldest Catholic Churches in Kentucky, he also contributed liberally. He was the first Catholic to die in Kentucky, and the first who was buried in the cemetery which he himself had bestowed."

From Hon. Ben J. Webb's Centenary of Catholicity in Kentucky published in 1885. He says, inferentially, the statement that Dr. Hartt was the first Catholic to die in Kentucky is altogether improbable. Dr. Hartt

must have died after July 12, 1802, which is the date of the deed.

In consideration of the sum of five shillings, to Stephen Bodin, of Washington County for a certain tract of land lying near Bardstown containing two hundred and three quarter acres, including the Roman Catholic Chapel. This deed is signed "George Hartt" and is recorded in the office of the Nelson County Court, in Deed Book 6, p. 97. When Father Bodin reached Kentucky in 1793, he estimated the number of Catholic families under his charge as three hundred.

The ordinary statistics of mortality would preclude the idea that there had not been many deaths among them previous to Dr. Hartt's own demise.

It is beyond question that the memory of Dr. Spaulding's aged informant was not equal to his desire to give exact information on the points submitted to him by the author of the "Sketches." If the motive which influenced Dr. Hartt and William Coomes to remove from Harrodstown to the neighborhood of Bardstown was to be "near their Catholic brethren" it is quite certain that their change of residence did not take place until 1785.

I am inclined to think that it took place a year later.

"HOW FAR THAT LITTLE CANDLE THROWS ITS BEAM!"

Mrs. John B. Floyd, Richmond.

A young man from New York, representing Embree Concert Service, Inc., came to see me. Curious, I wanted to know why, me. Concert work here is one pie my fingers haven't touched.

He said: "Mother who lives in Brooklyn, is an ardent Medical Auxiliary fan; organized the first one in New York State. When I told her business was taking me to Richmond, Kentucky, she said she wanted me to contact Mrs. J. B. Floyd, one of the Vice-Presidents of the Kentucky State Medical Auxiliary, who lived in Richmond."

He was a lovely boy; wanted only to know proper contacts to make here; thanked me for what I was able to tell him, and said he now appreciated just how far and how much varied good the Medical Auxiliary could do.

Another unadvertised use of our organization. I think it's fine, don't you?

Our Cover

THE PIONEER WOMAN

A unique contest for a grand prize was conducted at the Reinhardt Galleries in New York for three weeks, early in 1927, when visitors flocked from all over the country to see the twelve different interpretations of the typical pioneer woman presented by twelve different sculptors of note. Mr. E. W. Marland, a native of Pennsylvania who went west in 1907 but is now a resident of Oklahoma, sponsored the contest for the best model of an heroic figure about 50 feet in height, of The Pioneer Woman. For this he planned to spend \$350,000.00.

Said Mr. Marland: "Yes, I struck oil. The country has been good to me and the better I understand it, the more I love it. Looking about our Western Country, I saw monuments to Buffalo Bill, Kit Carson and a dozen other pioneers. Great men, every one of them, and a fine thing to honor their deeds. But, what about the pioneer woman? Well, I don't knew much about art, but ever since civilization began the greatest nations have honored their greatest figures by sculptured representations. So, I determined that the pioneer woman should have her statue, the best likeness and interpretation we of today would create. And, it is going to stand in a place that she might have chosen herself."

"All of the sculptors have done well. Any one of these twelve figures is an excellent interpretation of the frontier woman. The decision will be hard to make. I expect to be guided largely by public taste but the final decision will be my own. This National vote is going to show exactly what the American people think about one of their greatest women." Following the exhibit in New York, the twelve models were shown in Boston and in several of the cities of the Middle and Far West so that most of the population could see them. Each visitor was asked to cast a vote for first, second and third choice. These votes decided the selection of the prize winner.

The winning model was that of Mr. Bryant Baker. This typical pioneer woman of America, selected by popular vote, was under 30, and fair to look upon, simply garbed, wearing a sun-bonnet, walking with long stride and resolute, courageous carriage. Beneath her right arm, she carried a Bible, her worldly possessions swung in a handkerchief bundle at the elbow and by the left hand she held the hand of a little boy eagerly interest-

DANCE FOR HEALTH AND PLEASURE
IN A CULTURAL ATMOSPHERE

All Types of Dancing Taught

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Shackleton's
STEINWAY

and other fine Pianos

The HAMMOND ORGAN

"Everything in Music"

Largest Stock of Records in Kentucky

307-309 West Broadway

LOUISVILLE, KENTUCKY

WE BELIEVE IN SPRING

We believe that the most forbidding business-men should wear blue cornflowers in their buttonholes.

We believe in going to the country and looking at a new calf, wobbly and grave.

We believe in putting ruffles on the pantry shelves and red geraniums in the bathroom.

We believe in sitting on some old stile just before dark and listening for a whippoorwill.

We believe that the first small, intolerably green leaves make you want to cry.

We believe that rain in spring is different—that it beats against your heart.

We believe in falling in love in the spring—suddenly, violently and forever.

Bruce and Beatrice Gould, L. H. J. April, 1937.

ed in the panorama of life unfolding before him.

Said Bryant Baker: "What other woman ever had a better claim to glory? No woman of the world ever combined the ideal with hardy resistance in a more beautiful way. If the pioneer man blazed the trail, she stirred the pot and probably built the fire as well. She had to be homemaker in the wilderness, companion, sweetheart, mother and teacher."



Tuberculosis



Mrs. Lucius Ernest Smith, Louisville, State Chairman.

WHY EARLY DIAGNOSIS

Every reader of this publication should be, in some way, interested in tuberculosis. Anyone who has come in contact with tuberculosis, whether directly or indirectly, is very soon made conscious of the great need of controlling this treacherous disease and the closer the contact, the greater the consciousness of the inadequacy of present control measures.

The month of April has been set aside by the National Tuberculosis Association and all State and local associations for a well-planned national and State-wide educational campaign. It has long been realized that education is fundamental in the control of tuberculosis. Education, in this sense, does not mean merely a meager knowledge of the disease, but a practical understanding of the cause, manner of spread and the method of attack of tuberculosis in human beings. People must know why they should avoid those who are coughing and spitting in a way that spreads tubercle germs. They must know that early tuberculosis has neither signs nor symptoms. They must realize that if one waits until tuberculosis makes him ill enough to feel the need of a physician, it is usually too late to hope for cure. They should be made to understand that only early tuberculosis is curable, because only under such circumstances can the development of the disease be stopped before any damage has been done.

The purpose of the Early Diagnosis Campaign is to find tuberculosis early when it can be cured. The public should know that the old methods of discovering cases are no longer satisfactory to the public or to the patient, because they reveal only signs and symptoms; and we have already said that early tuberculosis has neither signs nor symptoms.

How, then, can we find tuberculosis early when it can be cured? By the tuberculin test and X-ray. The tuberculin test reveals the presence of the tuberculous infection, but a reactor to the tuberculin test does not nec-

essarily have tuberculosis. Every reactor to the tuberculin tests is a potential tuberculosis patient, because the infection is present in his body and may, at any time, develop into active clinical tuberculosis. It is well, at this point, to keep in mind that those who do not have tubercle germs in their bodies cannot develop tuberculosis. There can be no tuberculosis without tubercle germs.

When the presence of tubercle germs is revealed by the tuberculin test, the next and most logical step is to have a good X-ray made of the chest of the reactor. By this method and with the information given by careful examination, it is easy to detect the presence of clinical tuberculosis. The location, extent and amount of clinical tuberculosis, as well as the method of treatment for the

particular case, may then be determined with reasonable accuracy. By the use of these modern methods we are able to find tuberculosis when it can be cured.

Finding cases early not only enables the individual patients to obtain a cure, but also prevents infected persons from becoming spreaders of disease and thus endangering the lives of others. An old slogan says, "Tuberculosis causes tuberculosis. Every case comes from another case." Therefore everyone in contact with open tuberculosis should

follow the procedure outlined above to determine immediately whether or not he has received tuberculous infection.

In searching for early cases of tuberculosis, it is not uncommon to locate old active cases of infection that have been diagnosed "asthma" or "bronchitis," but have never been recognized as dangerous to those about them. Here, again, education plays a tremendously important part in creating the proper understanding that will enable communities to recognize and meet their own tuberculosis problems in a practical way.

Each active case of tuberculosis may spread disease to any number of individuals. The extent of the damage may be limited only by

Babies Protected From TB.



Early Diagnosis Campaign this month urges use of X-ray to protect babies and young mothers from tuberculosis.

the number of opportunities the spreader has to infect others. The damage may be confined to the family circle, or it may reach into one or more communities, according to the cruising range of the spreader. Education of the individual, as well as the community, is of vital importance. People must be made to understand that every case of tuberculosis may become a menace to the community at large, as well as endanger the life of the infected person, if his case is not put under the care of a competent physician at once.

The Early Diagnosis Campaign affords us a splendid opportunity to bring to our local communities all the facts regarding tuberculosis. Local health officers, public health nurses and practicing physicians are all anxious to give information to those desiring it. The Kentucky Tuberculosis Association will gladly send, on request, free literature on any phase of the tuberculosis control problem.

We have sufficient knowledge to control tuberculosis. The crying need today is for individuals who will use available knowledge themselves and spread this knowledge where it is most needed. Our group is well fitted for this task and should appreciate and grasp this splendid opportunity for service.

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Joint Expression of The Samson Community Auxiliary

Sainted Doctor of long ago!

We honor and revere his name,
He sought to ease man's pain and woe;
Cared nothing for wealth or fame.
Out in any sort of weather—

He would ride, for miles and miles,
Fresh courage and strength to gather
From the light of his patients' smiles.

Over a long and muddy road,
He would saddle his horse and go;
He helped to bear the heavy load
Of humanity here below.
Long weary nights he would stay,
And with disadvantages cope;
Not only to work, but to pray,
As he brought good cheer and fresh hope.

Oft a frugal and ill-cooked meal
At the most untimely hours—
A little rest and nap he'd steal
To stimulate human powers.
Any sacrifice he'd gladly make,
New life to bring into the world;
Paid with merely a "new namesake"
Even though it might be a girl.

Year after year he sent no bill—
His clothes became shabby and worn;
He said, "When they can pay, they will."
His saddle pockets too, were torn—
Such he could not afford to use,
Much on their contents depended;
Precious medicines he might lose—
Needful to him. So, he mended.

Potatoes, eggs, sausage and "bones."
Anything but cash to pay bills.
And worst still! He had made "bad loans."
Got nothing for service or pills.
When epidemics swept his town,
He was called to go day and night
He never could turn one call down,
Bravely fought on with all his might.

His life is an inspiration
To men, young and old, one and all
Who now follow his profession,
So—on them, may his mantle fall.
When he finished his labors here,
And with "patience, his race was run"
Surely, he found great treasures there,
And heard the glad verdict, "Well done."

Child Health And Public Relations

Mrs. Joseph E. Wier, Louisville, State Chairman, Public Relations

"COMMON COLD"

Why have a "common cold?"

Did you know it is estimated that 742,000 men, women and children in Kentucky have a cold every day in the year?

Today—it is your cold—but you are generous with it.***

Tomorrow—anybody, everybody has a cold.

Did you know the "common cold" is the greatest cause of absence from work that we have?

Did you know that the "common cold" impairs the mucus membranes so that pneumonia and other diseases may set in?

Why not stop this, prevent these colds?

How?

The Woman's Auxiliary to the Kentucky State Medical Association has inaugurated a program to try to lessen the prevalence of the "common cold."

This campaign has the approval of our Advisory Council from the Kentucky State Medical Association: Virgil Kinna rd, M.D.; A. T. McCormack, M. D. and V. A. Stille y, M.D.

The program is simple: we just urge women to voluntarily isolate themselves and their children from public meetings when they have a cold—or—wear a mask. As one

physician has said, "the most sensible thing to do is to remain at home, the next most sensible thing is to wear a mask." We ask each Auxiliary unit in Kentucky to start this campaign. Interest your P. T. A., the Catholic and other Church Women and the Federated Clubs.

The plan was presented at the Mid-Winter Board Meeting of the Kentucky State Federation of Woman's Clubs in Lexington, Feb. 1, 1940, by Miss Louise Morel, Health Chairman, and they promised to help us.

We have received letters from the following physicians in Kentucky not only approving our plan as a health measure—but unanimously agreeing that it is a good objective for the Woman's Auxiliary: Drs. Irvin Abell, E. Lee Heflin, Richard T. Hudson, Hugh L. Leavell, H. G. Reynolds, W. A. Weldon, John W. Scott, Virgil E. Simpson. Two of these physicians said some such plan was followed during the influenza epidemic in 1918 and that they were convinced that it limited the spread of the infection.

This campaign was introduced for the first time to the public at the Quarterly's Advertisers Day Program sponsored by the Jefferson County Medical Auxiliary, March 4th, in the Crystal Ballroom of the Brown Hotel, Louisville. Several types of mask were modeled by Mrs. Eleanor Hume Offutt of Frankfort and Mrs. R. T. Layman, of Elizabethtown.

Any inquiries may be forwarded to your Public Relations Chairman; Mrs. Joseph E. Wier, 1614 Chichester Ave., Louisville.

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MAGNOLIA 0772

WOMAN — HER SPHERE IN THE BUSINESS AND PROFESSIONAL WORLD

A. David Willmoth, A.M., M.D., Louisville

The world of today is a different world from the world of thirty years ago. It is not the first time in history that rapid changes have occurred both in relation to the material control which man has over his environment, but also in relation to the economic and social structure of society. Science has been said to be responsible.

Contemplating these changes, we cannot fail to wonder whether they are desirable. Are we moving toward a better world, or are the forces which we have set afoot driving us to destruction?

The conquest of disease is the greatest accomplishment of modern science. The study of pathology, of sanitation, of modern bacteriology has insured that never again will the Black Death sweep over the world.

In medical science many outstanding women have contributed their full share to the advancement. Madam Curie in developing Radium, Dr. Maud Slye in her work on cancer with mice, and numerous others whose work have added to the present day knowledge of disease and its control.

In this State Medical Association women took no active part until the Auxiliary was organized. The State Auxiliary followed the National or the American Medical Auxiliary. These are, today, the helping hand of the physicians who are battling with disease and the problems of the profession which have grown daily. It is not enough that you should be what your mothers were—you must be more. The spirit of the times calls for women of character. Will you heed the call? Will you emancipate yourselves from the old customs and fashions, and meet modern problems unflinchingly, a glorious company of wide-awake, well equipped help-mates for the members of the medical profession?

This changing world may hurl the genius of our profession from eminence to utter ruin, for it seems our high ideals hang on the frail fabric of public opinion. You, in this organization, the Auxiliary, should know what power you possess, what duties are resting upon you, what influences are to go out from you.

The medical profession, of which you are a part, has not escaped the changes taking

place. One is sometimes made to wonder if we are still the noble profession we idealized when we entered Medicine. Or, are the forces we set afoot making a profession on a level with a business?

We have been accused of being a trust. That makes us a business. Cheap literature, both in pamphlets and books, has sought to belittle our labors, by sowing seeds of mistrust in the public minds. It is to be regretted that some of our magazines carry articles, which if not openly derogatory to the Medical profession, are written in the style of thought by which the reader is caused to wonder just what the medical profession stands for.

Does it not seem strange, after decades, in which doctors conquered Cholera, Yellow Fever, Smallpox, Typhoid Fever, Malaria, many Infant Diseases, Diphtheria, etc., (and are now battling Syphilis, and by education of the public to early and frequent examinations to at least influence control of cancer,) that a class should suddenly discover our mental weakness and attempt to appoint for us a guardian in the form of laws? And, so color their aims that the public will reach for the glitter, and think it is getting the gold?

We seek to inspire you with a wish and a will to meet your responsibilities with a brave and determined spirit, and since your requirements for membership make this organization an integral part of the medical profession I urge upon you preparedness to aid the physicians of Kentucky, and the profession of America in combating vicious legislation.

Lock not mournfully into the Past—

It comes not back again

Wisely improve the present—

It is thine

Go forth to meet the shadowy future

Without fear and with a manly heart.

—Longfellow

Have faith. It is Men of Faith

Who have saved the world, not man of knowledge.

—Sir Wilfred Grenfell.

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CANCER CONTROL

Mrs. Bernard Asman, Louisville, Chairman

THEY HAVE THE RIGHT TO KNOW

We wish everybody could have attended the State and National Assembly of the Women's Field Army of the American Society for Control of Cancer, held in Louisville, February 14th, 15th and 16th. The leaders in this work came here from forty States, paying half of their own expenses, as the national office paid only half, and sitting in a three-day session just to learn how to work more effectively. These women evidently feel they are engaged in what is almost a holy crusade, as they realize that unless the educational campaign is carried on lives will be lost that might have been saved.

The three day session opened with Kentucky Day, when workers from the state came in, but due to slippery roads, instead of the 120 who had made reservations, only 34 could come. However those who did attend felt more than repaid because of the inspiration and information they received.

All the State and National leaders were present and contributed much to this state meeting. This marked the opening of the National Assembly and, aside from a tea at which the Jefferson County Medical Auxiliary was host, the entire time was devoted to discussion of methods of improving the machinery of the organization so the work could be done more efficiently and more people reached with the education.

April has been set aside by Act of Congress

as Cancer Month and it is interesting to know that cancer is the only disease that has been singled out by Congress and the President with an appeal for united action. Congress and the President have taken this dramatic action because cancer is the great killer and because it is not a contagious nor infectious disease but is a disease that starts in the individual and stays there until it is fatal or until it has been conquered by the weapons of physicians, X-ray, radium or surgery. It is an individual responsibility.

The only protection we, as individuals, have is learning a few simple facts about cancer, acting promptly when we recognize any unusual symptoms and having periodic physical examinations. This may seem peculiar advice to doctors' wives and yet they neglect themselves as well as wives of laymen.

Last year more than 40,000 persons were killed in auto accidents. The nation is aroused over careless drivers and yet the killer that takes a much greater toll is doing its damage without many people helping to fight it. Cancer brought tragedy and death to more than 400 American families each day last year, as more than 150,000 people were its victims. Its victims were, most of them, in the prime of life, at the age when they are most valuable to their families and to the nation.

The annual cancer campaign time is here. And assuredly, it is hoped every Medical Auxiliary and every Doctor's wife will cooperate with their Local Unit. If they do not know the name of their local chairman write to us and we will send it.

Mrs. Ritchie, Georgia Commander, struck what Mrs. Heller, Kentucky Commander, says she considers the keynote of the cam-

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The Times-Journal Publishing Co.

INCORPORATED

Bowling Green, Kentucky
Phone 18

paign. Mrs. Ritchie told of a community where she tried to get a chairman but became discouraged and gave up. A short time later, a young boy who attended their college came to her and said he had to quit college because his mother had just died of cancer and his words to Mrs. Ritchie are a challenge to the women of America as he said: "My mother had the right to know." So have the people of our state the right to know and Mrs. Heller says it is the task of the women to help give them the necessary information. This is a task that needs every one of us.

At the end of the year instead of hearing "My mother had the right to know" let us hear "My mother was told and is well today."

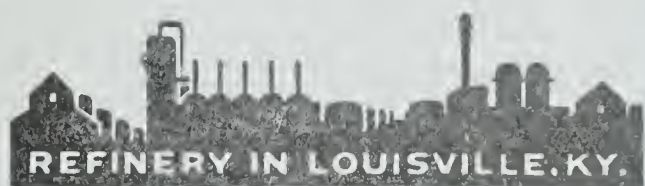
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Jackson 5901 Louisville, Kentucky



Colonel Golden Tip says:
For motoring satisfaction, use
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GOLDEN TIP Gasoline
Viscoyl Lubrication Service
in any

GOLDEN TIP STATION



YOUTH LOOKS AT CANCER

Richard Charlton, M. D.

Chairman Westchester, New York, Cancer Committee American Society for the Control of Cancer.

From earliest time people have suffered and died from cancer, a process now giving way before the advance of curative methods, if these methods are utilized when the growth is young—when localized to skin, lip, breast, bowel, or even lung. The present tragedy lies in the fact that a vast majority of men and women fail to ask for help immediately after discovering a something which is wrong—fail largely because of lack of information concerning earliest signs and symptoms of cancer; fail because of fear; fail because they never have been taught the curability of the disease.

One road to knowledge lies widely open—the road which leads directly to the minds of intelligent boys and girls who, avid for truth, strangers to fear, are eager to know of cancer as a crazy growth phenomenon, something vastly interesting from a biological standpoint, something remote from them, yet vital to the race.

After long consideration, consultation with teachers of biology, discussions with Directors of the American Society for the Control of Cancer, the Westchester Cancer Control Committee, in New York, is about to publish a 60-page text "Youth Looks at Cancer," for use in colleges and high schools—a sound, informative constructive presentation, innocent of disagreeable or alarming material, it will take the cancer story to every household in the nation when students are given an opportunity to study its contents.

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- Coats
- Sportswear
- Hosiery
- Bags

Louisville, Ky.

**ADVERTISERS DAY
SPONSORED BY JEFFERSON COUNTY
AUXILIARY**

Miss Grace Stroud, Louisville

Monday, March 4, was a memorable day in Jefferson County. It was the day of the regular business meeting and luncheon but instead of our usual program we sponsored an Advertising Bazaar for the support of the Quarterly.

The business meeting, with Mrs. Hudson presiding, was held in the South Room of the Brown Hotel. Reports of the officers and committee chairmen were heard and plans for the various activities of the next three months discussed. We were happy to have with us at this meeting the State President, Mrs. Reason T. Layman, and her guests from Elizabethtown.

Luncheon was served to 245 in the Crystal Ballroom. Mrs. R. C. Adams and Mrs. E. H. Koch had charge of the luncheon. The room was beautiful with palms and flowers and the displays of many Advertisers making splotches of color along the walls. The room was filled to capacity and among the many prominent people who attended were the First Lady of the State, Mrs. Keen Johnson and daughter, Judith, and the First Lady of the City, Mrs. Joseph D. Scholtz. 348 door-prize tickets were distributed, not including spectators.

Mrs. Hudson welcomed the guests and members and presented the speakers. The membership chairman, Mrs. Philip E. Blackerby, called the roll of new members and extended hearty welcome to each.

Mrs. Joseph E. Wier, State Public Relations Chairman, was presented and explained the Campaign for Cold Abatement which is being sponsored by the State Auxiliary.

Mrs. R. T. Layman and Mrs. Eleanor Hume Offutt, Frankfort, modeled the masks, some type of which Mrs. Wier hopes will eventually be used in all public gatherings.

Miss Marion Easton had an exhibit of articles made by the patients at the City Hospital and explained the Occupational Therapy work being done there.

A Style Show, under the direction of Mrs. Bernard Asman, followed. More than 150 friends unable to come to luncheon attended the Style Show. The models were Mesdames A. Clayton McCarty, Charles H. Moore, William McDaniel Ewing, Frank E. Daugherty, Spalding Abell, C. G. Arnold, C. M. Bernhard, Henry C. Herrmann, Joseph C. Dahlem, Arville Bradford. Kenneth Kan-

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**"HOLLENBACH
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Louisville, Kentucky

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MODEL DRUG STORE

BARDSTOWN ROAD AND EASTERN PARKWAY

THE LARGEST DRUG STORE IN THE HIGHLANDS.

LOUISVILLE, KY.

nard, Stephen C. McCoy, Louis Mitzlaff, J. Paul Keith, Carlisle Morse, Herbert V. Lancaster, Philip E. Blackerby and Anne Bullitt Brewer; Misses Mary Pat Asman, Florence Bare; Judith Johnson and Eleanor Hume Offutt, from Frankfort.

Dresses were from Renee' Dress Shop; hats from Millinery Studio and Clara's Hat Shop; shoes from Baynham's Shoe Store.

Pupils of the Frances Barrett School of Dancing gave a floor show during intermission.

The Advertisers of the Quarterly were most liberal with their products and gracious in their cooperation with the Business Manager, Mrs. William H. Emrich, and the Advertising Manager, Mrs. Joseph E. Wier.

The following gifts were donated and won as door prizes by the guests indicated.

Arctic Ice Company—Emergency Ice Box—Mrs. R. B. Howard, 321 S. Birchwood.

Brooks-Denhard Surgical Instrument Company—Bed Table—Mrs. Stephen C. McCoy, Preston Street Road.

Buttermann Ice Cream Company — Half gallon ice cream—Mrs. W. H. Bohlsen, 825 Barrett; half gallon ice cream—Mrs. George A. Hendon, 615 Brown Building; half gallon

ice cream—Mrs. P. E. Botts, 1808 Springdale Drive.

Cake Box—Decorated Cake—Mrs. H. W. Overley, 1722 Edgeland.

Cherokee Dairies—2 pound box of candy—Miss Francis Bacon, Mayflower Apartments.

Crown Laundry—4 Bath towels—Mrs. S. J. Horn 2108 Lowell.

Dolfinger China Company, Inc., — Green Glass Flower Basket—Mrs. Keen Johnson, Frankfort.

Emmart Packing Company — Ham—Mrs. A. Stewart, 1614 Chichester.

Ewing-Von Allman—1 quart milk for fifteen days—Mrs. J. S. Baumgardner, 2114 Edgeland Road; 1 quart milk for fifteen days—Mrs. F. W. Caudill, 1828 Princeton Drive; 8 party ices—Miss Mayme Sullivan, 1003 S. Second.

Geher and Sons — Teapot — Mrs. D. H. Lyons, 1857 Overlook Terrace.

Grocers Baking Company—Jar of Honey—Mrs. Peter Ganz, 711 Cedar Grove Court; Jar of Honey—Mrs. Mollise Worthington, 2302 Village Drive; Jar of Honey — Miss Florence Bare, Mayflower Apartments.

Hampton Cracker Company — Box of



cookies—Mrs. L. R. Curtis, 2112 Lauderdale; Box of cookies—Mrs. A. M. Stork, 146 Crescent; Box of cookies—Mrs. C. M. Bernhard, 2000 Grassmere Drive; Box of cookies—Mrs. R. E. Doughty, 4402 Southern Parkway.

Hirsch Bros. and Company—Ornamental basket filled with products — Mrs. Maurice Dunn, 2136 Cherokee Parkway.

Kentucky Dairies, Inc. — Tomato Juice Set—Mrs. S. P. Bale, Elizabethtown.

Kroger-Piggly Wiggly Stores — Pound of coffee, Mrs. Octavus Dulaney, 1244 Cherokee Road; Pound of Coffee—Mrs. L. F. Ransick, Cincinnati, Ohio; Pound of coffee—Mrs. Curt Krieger, 2000 Grassmere Drive; pound of coffee—Mrs. R. T. Layman, Elizabethtown; Pound of coffee—Miss Mary Dennis Murphy, 96 Valley Road.

Kentucky Hospital Service Association—Pair of hose—Mrs. Robert Irwin, 2629 Montgomery; Pair of hose—Mrs. Leo Witting, 606 S. 40th; Pair of hose—Mrs. B. Wilson Smock, 315 Pleasant View.

Louisville Apothecary—Hot Water Bottle—Mrs. A. E. Bell, 2422 Longest.

Mayes Printing Company — Stationery — Mrs. Kenneth Gray, Crestwood.

Meffert Equipment Company—Desk pad—Mrs. H. W. Derway, Brown Hotel.

Minish and Potts—Basket of Flowers — Miss Ruby Hedden, Baptist Hospital; Plant, white hyacinth in bloom—Mrs. Clark Kaye, 2363 Tyler Lane.

Newman Drug Company—Toilet Water — Mrs. Harry Ritter, 1611 Windsor.

Porter Paint Company—Quart of Enamel—Mrs. J. W. Sams, 310 Wendover.

Theo. Tafel—Hot Water Bottle—Mrs. E. F. Katzman, 936 Texas.

N. H. Lyons—Shoe Bag—Miss Hester Roberts, Baptist Hospital.

Hampton Cracker Company—Box of crackers for each woman.

Premier Paper Company—Desk blotter for each woman.

The following Advertisers had exhibits: Dolfinger China Company, Ewing-Von Allmen, Hirsch Bros. and Company, Honey Krust, Cake Box, Muth Optical Company, N. H. Lyons, Newman Drug Company, Kentucky Hospital Service Association, Geher & Sons, Emmart Packing Company, Buttermann Ice Cream Company, Kentucky Dairies, Woman's Field Army for the Control of Cancer and Hygeia Magazine.

Minish and Potts kindly loaned six beautiful palms for decorating purposes.

To each of the Advertisers who so generously gave of their products we say "thank you" and to each of our guests we say "come again."

TB LETS

Recovery from Tuberculosis—Much has been said and written of late years as to the relative value of the early diagnosis of pulmonary tuberculosis, but it is no less important to be sure by reliable tests that the disease is arrested. Temperature, pulse-rate, blood sedimentation and X-rays should all be utilized in coming to a decision. After there is no further progression, time should be given for the healing of the existing pathological process. Only then can the patient be assured that recovery has taken place and that recurrence is unlikely under the ordinary stresses of life.

When an old person has tuberculosis, it will generally be found that he has harbored it for many years. The Kentucky Tuberculosis Association supported by Christmas Seals is doing a great work in preventing the disease in the young.

Cover up each cough or sneeze. Not only do you prevent the spread of disease, but your neighbors think better of your conduct.

It is not polite to gobble your food and gulp your drink—nor is it healthful. Food must be properly eaten in order to nourish the body and protect it from disease.

Remember that pneumonia is "catching." Do not expose yourself by needless, perhaps harmful, visits to pneumonia patients.

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Louisville, Ky.

WHAT AN AUXILIARY MEMBER SHOULD KNOW*

Mrs. J. Bonar White, Atlanta.

1. Understand the purpose and objectives of her Auxiliary.
2. Receive the particular charge given by local, state, national Auxiliaries.
3. Receive instruction in how to fulfill that charge.
4. Become informed about:
 - a. Personal and community hygiene.
 - b. Administration of local, state, national health.
 - c. Medical and health laws, local, state national.
 - d. The health of her community.
 - e. Communicable diseases; their prevention and control.
 - f. Her health in relation to her community.
 - g. General problems of health all should know.
 - h. Approved educational material; where to obtain it.
 - i. The development of the Medical Arts.
 - j. Why the A. M. A. urges the promotion of Hygeia; how done.
 - k. What legislation the Medical Association sponsors; why; how the Auxiliary acts as a reserve force; what the individual may do.
 - l. Philanthropic work related to the medical profession; service by her Auxiliary; what her Auxiliary is doing; why.
 - m. What lay organizations are doing in health in her community.

How Does a Member Support Her Auxiliary?

By:

1. Paying dues.
2. Attending meetings.
3. Accepting offices, and chairmanships in other organizations, especially those related in health, so
 - a. Informed speakers may address them.
 - b. Approved material may be given.
 - c. Programs and projects to be undertaken shall be scientifically sound.
 - d. So she may keep informed about medical matters and activities in other organizations.
 - e. Report to her President and Society, programs and projects which are unwise and unacceptable; report to be made through Advisors.
4. Promoting good fellowship by affability at meetings; by attendance at entertainments and conventions; by assisting as requested.
5. By fulfilling the charges given through Advisors.

*Copied from Georgia's Suggested Programs for County Auxiliaries, 1939-1940.

Brooks Denhard Surgical Instrument Co.

Incorporated

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SICK ROOM SUPPLIES

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"The House That Quality Built" Swiss Cleaners & Dyers

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JACKSON 3151

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With fear, or when the soul with joy expands
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By beds of pain and loss they've learned to
 know

When to keep silent. When their steps grow
 slow

'Tis good to sit and listen to their lore,
 And when one calls me "Daughter," back
 I go

To Childhood's sweet Elysian fields of yore.

I love young doctors, with their confidence
 That in their time millennium will arrive:
 Ills will be conquered, scientists contrive
 That indiscretions bring no consequence.
 Inspiring is the thought that their young
 eyes

Will see into the magic future far,
 Beyond our years. Their plans revitalize
 Our stolid thoughts, and stir us till we are
 As full of faith as they, who seek to rise
 And hitch their streamlined roadsters to a
 star.

But oh, for comfort and for peace of mind
 Give me the middleaged! When I am ill
 I want to take off all my attitudes
 And hang them in the closet with my clothes:
 That deference to the old and to the young,
 That feigned alertness. **LET ME BE MY
 AGE.**

I love these doctors in the middle years
 Whose memories match mine. They're not
 so old
 That I must treat them with undue respect,
 They're old enough to not be taken in
 By shamming; young enough to try what's
 new.
 No studied rhymes for them; they know my
 thoughts,
 And when I'm cross and snappish, they come
 back
 In language that is music to my ears.



HYGEIA
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Dear Auxiliary Members:

I am glad to report the appointment of some New Hygeia Chairmen throughout the Counties and some new subscriptions, together with renewals.

The Hygeia Booth at the Advertisers Bazaar and Style Show presented at the Luncheon given by the Jefferson County Auxiliary for the benefit of "The Quarterly," held at the Brown Hotel on March 4th, was both attractive and instructive, displaying many different Health Pamphlets and Hygeia Magazines. Much interest was manifested.

Sincerely yours,
 (Mrs. J. W.) Ida B. Sams,
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News From The Counties

BREATHITT

The December meeting of the Breathitt County Medical Auxiliary was held at the home of Mrs. Frank K. Sewell. In the absence of the President, Mrs. H. June Jett, our Vice-President, presided.

The subject of the Program was The Quarterly, our magazine supplement to the Kentucky Medical Journal. Mrs. M. E. Hoge very ably conducted the Questionnaire as it had been presented at the State Annual Meeting in Bowling Green, and we were all delighted with the attractive way in which all the things we should know about The Quarterly were presented. Everyone present now has a much fuller knowledge of our magazine and also has an earnest desire to try to be in closer touch with its aims and know more fully its contents in the future.

Mrs. H. June Jett, Chairman for arranging a Christmas box of bath towels for Hazelwood Sanatorium, reports that a well filled box was sent and the Auxiliary received a very gracious letter of thanks from Mrs. Paul A. Turner, Business Manager of Hazelwood Sanatorium.

Our second Christmas project was to arrange for a basket of clothes, food and toys for one of our most destitute families. The decision to provide amply for this one particular family was made in preference to a contribution to the community fund or the scattering of small donations to reach several. The appreciation with which, Mrs. Jett reported, it had been received made us all feel glad and at the same time feel that perhaps we might do more for them as the year progresses.

We were very happy to have a letter read from our new State President concerning the Achievement Contest for this year. Although we feel that perhaps we shall get started a little late, we are hoping to make, at least, a creditable showing. A committee has been appointed to plan a work program for the year which will cover the various suggestions and plans Mrs. Layman has made. May we say that we think the Achievement Contest is a splendid thing since it will

make the various Auxiliaries each feel a part of one big unit—our State Organization.

A letter from Mrs. E. H. Heller, State Commander, Woman's Field Army of the American Society for the Control of Cancer, concerning an appropriation from the State Legislature for cancer clinics was read and received with much enthusiasm. Already letters have been drafted to be signed by each member of our Auxiliary and copies sent to Representatives Bach and Senator Turner. We feel that it is a splendid move and hope with you, Mrs. Heller, that your dream of State supported cancer clinics will soon become a reality.

Mrs. O. H. Swango is again Chairman of Hygeia, replacing Mrs. M. E. Hoge.

The January meeting was held at the home of Mrs. H. R. Parker with Mrs. J. O. Van Meter, President, presiding. In spite of a very cold and disagreeable evening, seven members answered the roll call. The suggestion was made that in the future each member respond with a news event related to some phase of medicine.

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During the regular Business Session the following reports were given:

Mrs. Parker, Chairman of the Tuberculosis Christmas Seal sale in Jackson reported total collections to date as \$125.05. Expenses — \$5.03, leaving \$120.02 remaining. The Chairman reported 65 persons had not responded at all, but she felt sure the amount would be increased when all sales were received. The Auxiliary is very proud of Mrs. Parker's work in this Drive especially since tuberculosis is one of the greatest problems of Breathitt County.

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Our Program for January was a study of the various phases of Socialized Medicine. Mrs. Frank Sewell had kindly agreed to make a study of the various steps in its progress and its outlook—from the point of view of a layman. The movement was traced from the beginning and a study made of the various methods of its administration in other nations and probable working plans for the United States. The discussion was met with a great deal of enthusiasm and interest, and the Round Table discussion at the close of the study revealed a keen interest on the part of the members, together with the fact that the various steps in the progress of the movement here in our country are being closely followed.

We have our program for the rest of the year almost complete.

The meeting adjourned, after which a delightful salad course was served by our hostess.

The February meeting of the Breathitt County Medical Auxiliary was held February 16, at the home of Mrs. H. June Jett, Jackson, with its President, Mrs. J. O. Van Meter, presiding.

The Roll Call was answered by each member giving a current news topic related to some phase of medicine. This proved very interesting and instructive for both members and visitors.

The President reported on a letter from Mrs. E. H. Heller, State Commander, Woman's Field Army of the American Society for the Control of Cancer, about the National Cancer Control Assembly held in Louisville

February 14, 15 and 16. She also gave tentative plans for the Cancer Drive in April.

The total amount collected in the Tuberculosis Christmas Seal sale was \$128.74. Of this amount, \$64.37 goes to the State Tuberculosis Association and the remaining half remains in Breathitt County to be used in the work here. (The expenses of \$5.03 are deducted from the half which remains here.) The Auxiliary Treasury does not get any of the money, but we probably will assist with a Tuberculosis Clinic or something of that kind.

The program was on Social Hygiene with Miss Bessie Wright in charge. Miss Wright gave a very informative discussion of "Syphilis, Its Causes, Results, Treatment, Means of Contact" and most astounding to members, of course, statistics on conditions in Breathitt County. Mrs. Stanley Hollon had for her subject "Gonorrhea," on which she gave similar history and discussion.

The members decided that there was much we could do in talks to our young people in the various organizations here.

Guests of the meeting were Dr. Frank K. Sewell, Dr. M. E. Hoge and Mr. H. June Jett.

After the meeting adjourned, a delightful plate lunch was served by the hostess.

CALLOWAY

The new home of Dr. and Mrs. Hugh L. Houston will be completed in the early spring. It is a rambling English structure built on a hill out south of Murray on the Hazel Highway.

Miss Marilyn Mason, daughter of Dr. and Mrs. R. M. Mason, is a student at Northwestern University, Evanston, Ill.

Dr. E. D. Fisher, of the William Mason Memorial Hospital, read a paper, recently, before the Marshall County Medical Society on tuberculosis.

Dr. and Mrs. E. L. Garrett, Dr. and Mrs. A. D. Butterworth, and Dr. and Mrs. L. D. Hale attended the Southern Medical meeting at Memphis.

Dr. C. J. McDevitt, of the Keys-Houston Clinic, and Miss Susie Green of Carrollton, were married December the 15th. We are pleased to have Mrs. McDevitt as a new member of our Auxiliary.

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Our Auxiliary observed Jane Todd Crawford Day with a luncheon, the chairman, Mrs. Hal Houston, leading in a very interesting program, ably assisted by Mrs. E. B. Houston. We had 10 present.

Dr. A. F. Russell of Nashville, was a recent visitor here to see his mother, Mrs. A. D. Russell, of College Addition.

Dr. Ora K. Mason and Miss Patricia Mason have returned from visiting the former's parents, Dr. and Mrs. D. H. Kress of Orlando, Florida.

Dr. E. L. Garrett of the Mason Memorial Hospital, and Mrs. Garrett have returned from Louisville, Mrs. Garrett attending mid-year executive board meeting of the Auxiliary to the Kentucky State Medical Association.

CAMPBELL-KENTON

The Auxiliary to the Campbell-Kenton Medical Association was entertained with a Christmas party at the home of Mrs. John Dawson. We had an exchange of gifts, followed by games which were enjoyed by all.

Toys and gifts of all kinds were gathered and sent to the Frontier Nursing Service. Fruits and jellies were collected and sent to the Campbell County and Kenton County Orphans Homes.

Dr. J. Asher Caldwell and family of Southgate have been enjoying a stay in Florida.

Friends of Mrs. Emma Menefee of Covington will be glad to know she is well on the road to recovery from her recent illness.

Mrs. J. S. Faulkner of Bellevue and Mrs. J. E. Dawson of Ft. Thomas, attended the National Assembly of the Woman's Field Army for Control of Cancer held at the Kentucky Hotel, Louisville, February 14, 15, and 16.

The friends of Dr. and Mrs. Chas. Baron of Latonia, will regret to know their baby, Gwin, was admitted to the Jewish Hospital, Cincinnati, Ohio.

FRANKLIN

At a meeting of the Woman's Auxiliary of The Franklin County Medical Society held on December 6, with Mrs. R. D. Barton at her home on the Versailles Highway, arrangements were completed for a tea which the Auxiliary gave December 13, Jane Todd Crawford Day.

The Auxiliary planned a number of entertainments to be given next year and completed its year's program of work.

Following the meeting refreshments were served, the dining table being decorated with poinsettias and greens and lighted by white candles. Mrs. R. M. Coblin presided at the tea service.

Wives of several physicians attending the District Meeting at the First Christian Church enjoyed the tea commemorating the heroism of Jane Todd Crawford, which was held at the home of Dr. and Mrs. John P. Stewart. Mrs. Joseph Barr, President of the Franklin County Auxiliary and Mrs. John G. South, poured. Mrs. Stewart was assisted in receiving by her daughters.

The January meeting was held at the home of Mrs. W. P. Blackburn on January 3.

The Woman's Auxiliary of the Franklin County Medical Society, met February 12, with Mrs. R. M. Fort at her home on St. Clair Street. Members present were: Mrs. Joseph Barr, Mrs. R. D. Barton, Mrs. W. P. Blackburn, Mrs. R. M. Coblin, Mrs. L. L. Cull, Mrs. M. C. Darnell, Mrs. O. B. Demaree, Mrs. R. M. Fort, Mrs. Jesse K. Lewis.

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Since many members were absent, no formal program was given, the meeting being devoted chiefly to the transaction of business. Mrs. Barr, the President, gave a report of various activities, and outlined plans and objectives for the year's work.

Mrs. Jack Marshall, the recording secretary, having resigned, Mrs. Jesse Lewis was elected to fill out the unexpired term.

The treasurer, Mrs. Coblin, reported the payment of bills for drugs, coal and laundry for the colored hospital, besides smaller amounts incurred in the maintenance of the Auxiliary.

Mrs. R. M. Fort was appointed a delegate to the State Meeting of the Woman's Field Army for Cancer Control, which was held in Louisville on February 14, 15 and 16.

Reports by the members on how they earned their money disclosed a wide variety of talent within the organization, and keen business ability on the part of the donors.

At the conclusion of the meeting, delightful refreshments were served to the members, who also enjoyed an informal discussion of Mrs. Fort's pictures.

To become a member of the Auxiliary, a woman must be the wife, widow, daughter, sister or mother of a doctor. All eligible women in Frankfort and Franklin County will be welcomed as members.

Dr. and Mrs. E. C. Youmans returned February 16 from Cloverport where they were the guests of Mrs. Youmans' sister, Mrs. Frank Smith and Mr. Smith.

Dr. and Mrs. R. M. Coblin left February 17 for a visit in New Orleans, La., before going to Sarasota and Miami Beach, Fla., for a stay.

Dr. and Mrs. Coblin planned to be away about two weeks.

Mrs. Keen Johnson, accompanied by Mrs. Eleanor Hume Offutt and Misses Judith Johnson and Eleanor Hume Offutt, was in Louisville on March 4 for the luncheon and style show given by the Woman's Auxiliary of the Kentucky State Medical Association in the Crystal Ballroom of the Brown Hotel, which featured the daily comings and goings of the wife of the modern physician.

Both Miss Judith Johnson and Miss Eleanor Hume Offutt were models in the style show, of which Mrs. Bernard Asman was general chairman.

Setting for itself a task of community service which has as its goal the development of and assistance to the Winnie A. Scott Memorial Hospital here, the Woman's Auxiliary of the Franklin County Medical Society have gone to bat in a big way and have things humming. The Auxiliary as a first move has already resolved to pay immediately some outstanding obligations of the hospital and are seeking to enlist official aid in reaching their objective.

At the regular meeting of the Filson Club in Louisville on Monday, February 4, Mrs. Eleanor Hume Offutt delivered a lecture on "The Romance of Antiques," which was well received by a large and enthusiastic audience. Mrs. Offutt is an authority on antiques, particularly of Kentucky antiques.

GRAVES

The Graves County Auxiliary met on December 13 at the home of Mrs. H. H. Hunt for an all day meeting. Fourteen members were present. A box of toys was packed for the Frontier Nursing Service at Hyden, Kentucky. Two gift books for the Doctor's Shop were received, and are to be sent in memory of Dr. C. J. Stokes of Farmington. His daughters, Mrs. Laura Skinner and Mrs. Roy Maddox were the donors. A package of linens for the Free Bed patients at Hazelwood Sanatorium was prepared for mailing. Flower seeds for the Jane Todd Crawford Trail were sent to Mrs. A. T. McCormack, State Chairman.

Mrs. Usher exhibited the posters that were used in the Kentucky exhibit at the American

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Medical Meeting last spring. The replica of Jane Todd Chawford's cabin home was passed about and admired. After a general discussion it was decided to turn the model over temporarily to the newly organized Graves County Health Unit for use in the schools of the County.

A delicious luncheon was served at noon by Mrs. Hunt and her daughter, Miss Jincy Hunt. Tables for four were placed in the living room where decorations carried out the Christmas motif.

After lunch, Dr. Will J. Shelton spoke to the members on the subject of Cystic Tumors. A general discussion followed.

Mrs. George Fuller read a paper on the history of Medical Auxiliaries, beginning with their origin in Texas, their spread, the organization of the Kentucky Auxiliary, and the organization of the Graves County Auxiliary in the parlor of the Elks Club, which was the first unit in this state. Three charter members are still active in our Auxiliary. Mrs. Fuller invested the new President, Mrs. Hargrove, with a gavel which had been presented to the Graves County Auxiliary by the State Auxiliary as a prize for the best scrap book in the first scrap book contest. The gavel had been mislaid for several years. It was especially appropriate that Mrs. Hargrove should receive it since she had been the one who took the scrap book to the State Convention held in Richmond, 1928, and received the prize for Graves County.

Mrs. Wm. T. Vaughan, our publicity Chairman, has been ill for many weeks, but now, we are glad to report, is well on the way to recovery.

The new name to add to our membership is Mrs. J. A. Mayer, wife of Dr. J. A. Mayer, who joins a local hospital in Mayfield and has assumed his position. The Auxiliary and Community welcome them.

Mrs. K. R. Patterson, Mrs. A. J. Lowe, and Miss Enid Quinn entertained the Home and Garden Department of the Mayfield Woman's Club, November 8, 1939, in the home of Mrs. K. R. Patterson.

The Guest Speaker was Dr. N. M. Akins, Director of the Graves County Health Unit. Dr. Atkins was formerly head of the Health Department of Murray State Teachers College.

HARDIN

Observance of Jane Todd Crawford Day December 13, was held at the home of Dr. and Mrs. Wm. Bethel where we ran five sewing machines all day in the preparation of a Christmas box for Hazelwood Sanatorium.

The January meeting was held at the home of Mrs. Garnett Bale, where many interesting subjects were discussed on lines of health measures. A committee of three was appointed to visit our rest rooms at our city schools and report at next meeting on sanitary conditions.

The March meeting was held at the home of Mrs. George Woodard with Mrs. George Cohen of Louisville, as speaker.

A rummage sale was held in March.

Members of the Auxiliary are helping to feed the underprivileged school children of our city.

We have prospects for new members at our next meeting.

Mrs. R. T. Layman, Mrs. George Bradley, Mrs. George Woodward and Mrs. Shelby Bale attended the annual Advertisers Day Luncheon and Style Show for The Quarterly held in the Crystal Ballroom of the Brown Hotel, Monday, March 4. Mrs. Bale was the fortunate member from Hardin who won a beautiful tomato juice set as a door prize. They also attended the Business Meeting of the host Auxiliary, Jefferson County, at 11:00 a. m.

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JEFFERSON

A hearty welcome to the new friends who have joined our group during the membership drive! We were happy to see so many new faces at the party which was given for them and other members and prospective members. The Tea was given at the State Board of Health Building on February 9th and Mrs. Richard T. Hudson, President, and several past Presidents were in the Receiving Line. Mrs. E. Lee Heflin and Mrs. Phillip Blackerby poured tea. The table was beautifully decorated with the red and white colors of St. Valentine's Day being used in both flowers and mints. Mrs. Blackerby and Mrs. J. Duffy Hancock had charge of the arrangements.

It was a great pleasure to be hostess to the National Convention of the Woman's Field Army for the Control of Cancer at a tea on February 15th at the Crescent Hill Woman's Club. Mrs. Mariorie B. Illig, National Commander, Mrs. E. H. Heller, Kentucky Commander, Mrs. Richard T. Hudson, President of Jefferson County, and Mrs. M. J. Henry were in the Receiving Line. Mrs. Phillip E. Blackerby and Mrs. E. Lee Heflin poured and Mrs. Arch Herzer, Mrs. William E. Gardner, Mrs. Joseph C. Dahlem, Mrs. Arthur T. McCormack, Mrs. Bernard Asman, and Miss Grace Stroud assisted as hostesses.

Among our members who have enjoyed a few weeks of sunshine in Florida this winter are Mrs. O. H. Kelsall, Mrs. M. C. Baker, and Mrs. James S. Lutz. Dr. and Mrs. Lutz were at Fort Lauderdale for three weeks and then went by Clipper to Havana.

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We miss Mrs. E. W. Stokes every winter while she is in Florida with her son and are always happy to have her back when she returns in May.

Congratulations to Dr. and Mrs. Henry B. Asman on the birth of a daughter, Harriet Anne, on January 22.

Dr. and Mrs. Phillip E. Blackerby have announced the engagement of their daughter, Mary Keen, to Mr. Leonard May of Washington, D. C. The wedding will take place April 20. They will live in Washington, D. C.

Miss Blackerby graduated from Hollins College a short time ago and Mr. May is a graduate of Amherst.

Our deepest sympathy is extended to Mrs. Louis J. Hackett and Mrs. J. Rivers Wright in the loss of their brother.

Auxiliary members in Jefferson County will be interested to know that Miss Simone Oglesby Thompson, a former member of the Jefferson County Auxiliary, but residing in Spokane, Washington, the last two years, was married on Saturday, September 2, 1939 to Mr. Charles Thomas Sharpe. Mr. and Mrs. Sharpe are living at 701—14th Avenue Spokane, Washington.

Dr. and Mrs. Edward R. Palmer announce the marriage of their youngest daughter, Brent, to Mr. Albert F. Vandergrift on Tuesday, December 26, 1939 at Louisville.

A luncheon on January 29, 1940 at the Canary Cottage was given by the Louisville Tuberculosis Association in appreciation of the work done by the Woman's Auxiliary to the Jefferson County Medical Society during the Christmas Seal sale.

Members present were: Mrs. Joseph Dusch, chairman, Mrs. J. Woodville Sams, Mrs. Oscar O. Miller, Mrs. Henry Arch Herzer, Miss Grace Stroud, Mrs. Oliver Holt Kelsall, Mrs. Rivers Wright, Mrs. Walter I. Hume, Mrs. Edward Fred Katzman, Mrs. Richard T. Hudson, Mrs. C. M. Bernhard, Mrs. John M. Keaney, Mrs. Bernard Asman, Mr. Stephen C. McCoy, Co-Chairman—Stewart Dry Goods

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Workers not present at the luncheon were: Mrs. F. Parks Ogden, Co-Chairman Citizens Union National Bank, Mrs. H. C. Herrman, Mrs. Lamar W. Neblett.

LICKING VALLEY

Dr. and Mrs. J. M. Blades attended the Southern Medical Association meeting in Memphis, November 21-24.

The December meeting of the Woman's Auxiliary to the Licking Valley Medical Association was held at the Highland Country Club. Due to the holiday spirit we had no business meeting other than election of officers. President, Mrs. Luther Bach, Bellevue; Vice-President, Mrs. H. C. White, Latonia; Secretary and Treasurer, Mrs. J. M. Blades, Butler.

Mrs. J. M. Blades gave an interesting reading on Jane Todd Crawford. The story "The Christmas Cradle" by Grace Fletcher was read by Mrs. Dawson. Later games were played, awards going to Mrs. A. Caldwell, Mrs. H. C. White and Mrs. J. M. Blades.

Mrs. J. M. Blades gave a talk on Jane Todd Crawford and read a paper on the Premarital Laws before the Woman's Club of Butler.

MADISON

(News received December 17, too late for inclusion in January Issue).

The Madison County Auxiliary enjoyed a dinner meeting with the Medical Society in Richmond on December 15, and appreciated the privilege of hearing their speaker on "Endocrine Therapy." This was followed by a regular business meeting of the Auxiliary while the men in another room conducted their business. The following is the completed roster for 1939-1940:

Advisory Council: Dr. Hugh Mahaffey, Dr. Shelby Carr and Dr. J. A. Mahaffey, all of Richmond.

Officers: President, Mrs. Wilson F. Dodd, Berea; Vice President, Mrs. Harry Blanton, Richmond; Secretary, Mrs. R. H. Cowley, Berea; Treasurer, Mrs. J. W. Armstrong, Berea.

Committee Chairmen: Cancer—Mrs. A. F. Cornelius, Berea; Hygeia, Mrs. Wilson F. Dodd, Berea; Jane Todd Crawford—Mrs. Shelby Carr, Richmond; Program — Mrs. Hugh Mahaffey, Richmond; Public Relations — Mrs. O. F. Hume, Richmond; Tuberculosis—Mrs. J. H. Rutledge, Richmond.

On Jane Todd Crawford Day, December 13, some of our members had the pleasure of attending the special program in Frankfort and enjoyed a brief commemorative talk by Mrs. A. T. McCormack in honor of Jane Todd Crawford. They brought back the report of the observance to the rest of the group.

(Current)

February 15, an afternoon meeting in Berea at the home of Mrs. John Armstrong, proved a most enjoyable occasion. The highlight of the afternoon was the interesting informal lecture and open discussion of the medical and economic situation in China. This was presented to us, first-hand, by the wife of Berea's new President, Mrs. Francis S. Hutchins, herself an M. D. She left China only last summer, and told us of many interesting problems created by war in a country where at best epidemics are often rampant. We continued our many questions around a tea table beautifully prepared by the hostess.

Our next meeting is scheduled as a luncheon meeting in Berea in May.

The invitation from Mrs. Bernard Asman, Chairman of the Advertisers Bazaar, Luncheon and Style Show, for the benefit of The Quarterly, held in the Crystal Ballroom of

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the Brown Hotel on Monday, March 4, was received by the President, Mrs. Wilson F. Dodd, Berea. Mrs. Dodd informed Auxiliary members by telephone and inserted a notice of it in the Berea and Richmond newspapers. It was also carried in the Daily Club Calendar of the papers for the rest of the week.

An unfortunate automobile accident occurred on March 4 when Mrs. John B. Floyd, daughter Helen, Mrs. Shelby Carr and Mrs. J. H. Rutledge, all of Richmond, were on their way to Louisville to attend the Advertisers Bazaar and Style Show. Miss Helen Floyd was to be one of the models in the Style Show. All of the occupants of Mrs. Floyd's car were badly shocked and bruised, but not severely injured and were able to return to their homes in Richmond immediately. At last reports, all were doing well, but greatly disappointed to miss the party in Louisville.

MARSHALL

The Marshall County Medical Society and the Auxiliary were guests last Thursday evening, October 26, of the Doctors on the staff of the TVA hospital at Gilbertsville. Their hosts included Dr. Estridge, Dr. Sharpe and Dr. Breyspraak:

After a delicious dinner served at the cafeteria, the Society and the Auxiliary held the business session in a ward at the hospital. Dr. F. C. Estridge, president of the County Society, opened the meeting. This being Auxiliary night also, he introduced Mrs. S. L. Henson, President of the Woman's Auxiliary, to the Marshall County Medical Society. Mrs. Henson then introduced Mrs. Estridge, chairman of the program committee for the Auxiliary, who immediately took charge of the meeting.

The program included the following:

Invocation, Mrs. O. A. Eddlemann.

Minutes, Read by Mrs. W. T. Little in the absence of the secretary, Mrs. N. E. Green.

Tribute to a Doctor, original, by Mrs. L. L. Washburn.

The Organization of the Auxiliary, A paper prepared by Mrs. N. E. Green and read by Mrs. W. T. Little.

Report of the Historical Work, Mrs. V. A. Stilley.

Those attending included: Dr. A. J. Bean, Brewers; Dr. and Mrs. S. L. Henson, Dr. and Mrs. L. L. Washburn, Dr. and Mrs. V. A. Stilley, Benton; Mrs. W. T. Little, Dr. Stinson, Dr. and Mrs. O. A. Eddlemann, Sharpe; Dr. and Mrs. F. G. Estridge, Gilbertsville and Doctors Sharpe, and Breyspraak, of Gilbertsville.

Our whole county was saddened by the passing of Dr. Van A. Stilley, Jr., of Pad-

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ucah, on November 28th, son of Dr. V. A. Stilley, Benton, a member of the State Advisory Council for the Auxiliary.

MERCER

The Mercer County Medical Auxiliary met January 4 with the President, Mrs. Hunter Coleman, Harrodsburg.

The hour was spent in an informal discussion on current events.

Our Secretary and Treasurer Mrs. Curtis Park, told of the accomplishments and charity work of the Parent-Teacher Association, and stressed the need of food, clothing and fuel in the families of some school children. A motion carried that we donate the money in the treasury for that purpose.

A report was made on the sale of Christmas seals. The Auxiliary cooperated with the local woman's club with favorable results.

A delightful social hour followed with refreshments served by the hostess.

Miss Janis Elaine Barnard arrived December 26, 1939 to make her home with Dr. Wm. Barnard and Mrs. Barnard.

SAMSON COMMUNITY

The Samson Community Hospital Medical Auxiliary met October 3, 1939 with Mrs. C. C. Turner. The leader was Mrs. C. C. Howard. Reports from the State Meeting in Bowling Green were given by Mrs. H. G. Davis and Mrs. Clifton Richards. Mrs. Barrick Bryant and Mrs. Clifton Richards gave papers on pioneer doctors of Kentucky. Tea was served by the hostess.

Miss Doris Richards, daughter of Dr. and Mrs. Clifton Richards, is attending Centre College at Danville, Kentucky.

The Auxiliary met November 13, 1939 with Mrs. H. G. Davis. The leader was Mrs. Paul S. York. A quiz on The Quarterly and Hygeia was conducted by Mrs. York. Delightful refreshments were served by the hostess.

John Clifton Richards, son of Dr. and Mrs. Clifton Richards; died November 15, 1939. He was attending school in Nashville and died after a short illness.

Dr. and Mrs. J. W. Acton are spending the winter in Florida.

COUNCILOR'S REPORT OF WOMAN'S AUXILIARY TO THE SOUTHERN MEDICAL ASSOCIATION (1938)

Mrs. John M. Blades, Butler

(Omitted because of lack of space in October, 1939 Issue)

You perhaps read in your January 1939 issue of the Quarterly, "The Oklahoma City meeting of the Southern Medical Auxiliary, held November 15-18, 1938, will be long remembered as one of the most outstanding of all Southern Medical Auxiliary meetings. Oklahoma City was so genuinely hospitable." The doctors' wives of Oklahoma City were

The Auxiliary had a luncheon meeting on December 13, 1939, Jane Todd Crawford Day, at Jenny Lee's Cottage Inn. Mrs. J. W. York was hostess. Mrs. C. C. Turner presided. Miss Marion Black gave a paper "The Allergic Child." A quiz on Hygeia was given by Mrs. H. G. Davis.

A daughter, Martha, was born to Dr. and Mrs. John Dickinson on December 26, 1939 at Samson Community Hospital.

Dr. and Mrs. A. T. Botts are spending the winter with their son, Dr. Lee Botts and Mrs. Botts in Wausseau, Ohio.

Miss Lois Howard, who is attending Transylvania College, spent Christmas with her parents, Dr. and Mrs. C. C. Howard.

Dr. and Mrs. F. Edwards spent Christmas with their daughter, Mrs. Dallas Smith and Mr. Smith in Baltimore, Md.

Dr. and Mrs. C. C. Turner spent Christmas in New Orleans.

Miss Marian Black has been visiting relatives in Canada.

Miss Lois Howard has been chosen "Miss Transylvania" by the Student Body of the College.

Mrs. J. W. York is vacationing in Florida.

The Auxiliary met with Mrs. J. J. Adams on January 16, 1940. A very interesting paper "Should Cousins Marry" was read by Mrs. Barrick Bryant, Mrs. R. E. Hayes was leader and conducted the quiz on Hygeia. Refreshments were served by the hostess.

Dr. and Mrs. Paul S. York and family have moved to their new home in the country.

whole heartedly gracious. They greeted us as one old friend greets another and not as passing strangers. We looked in amazement at Oklahoma City's marvelous buildings of modern architectural beauty, outstanding because of sheer whiteness. We revelled in the lingering Indian customs and cowboy feats. Thus we gloried in the traits of a city that was born in a day. For, it was Oklahoma City that was, on the morning of April 22, 1887, part of a vast prairie and by nightfall a city of 10,000 people who at the sound of a pistol had entered, driven their stakes in this "Indian Country," and started to build homes.

So it was in this interesting place, now a city of 185,000, that Mrs. Luther Bach of Bellevue, Kentucky, conducted the Executive Board Meeting of the Fifteenth Annual Meeting of the Auxiliary to the Southern Medical Association at a breakfast at eight o'clock, on Wednesday, November 16, 1938. Sixteen members were present and ten States were represented. Then, at nine-thirty, Mrs. Bach very graciously presided at the opening session of the convention with Miss Grace Stroud as her efficient Recording Secretary, elected at the Board Meeting to take the place of Mrs. E. H. Hargis, Birmingham, unable to attend.

Rev. R. Scribner, of the Congregational Church of Oklahoma City, gave the invocation. Mrs. Lewis M. Moorman delivered the address of welcome to which Mrs. A. T. McCormack of Louisville responded, Mrs. H. Dale Collus, Mrs. George H. Garrison and Mrs. W. K. West also brought greetings.

Reports from standing committees were presented and accepted. Among these were the reports on Jane Todd Crawford read by Mrs. Arthur A. Herold and Mrs. Stephen McCoy's report as Custodian of Records, read by Mrs. P. E. Blackerby. Mrs. Herold presented Mrs. H. V. Usher who donated a check for \$1,050.00 from the Kentucky Auxiliary to the Southern Auxiliary to be applied to the joint Jane Todd Crawford Memorial Fund of the Southern States. A very impressive Memorial Service was then conducted after which the meeting recessed for members to go to the Annual Luncheon in the Silver Glade Room.

At the Luncheon, Mrs. Bach introduced Mrs. Wm. Hibbitts of Texarkana, Arkansas, who presided as toastmistress in a very charming way. Addresses were made by our distinguished Kentuckians, Dr. Irvin Abell, President of the American Medical Association, and Dr. A. T. McCormack, Past President of the American Public Health Association. Mrs. Charles C. Tomlinson, President

of the Woman's Auxiliary to the A. M. A., and Mrs. W. K. West, incoming Southern President, were also presented. The program for the Luncheon Session was concluded with a very beautiful and attractive Fashion Show. Every dress was worn by the wife of a doctor who was also an Auxiliary Member. There are over 200 doctors in Oklahoma City and the Auxiliary Membership is 100 per cent.

On Thursday, November 17, at 9:30 A. M., the last session of the Annual Meeting of the Auxiliary was held in the main dining room of Oklahoma Biltmore Hotel with Mrs. Luther Bach in the President's chair. After the Minutes of the first session were read and approved, Mrs. Ralph O. Early reported a total registration of 641 ladies attending with 29 States and the District of Columbia represented. Mrs. M. Pinson Neal of Columbia, Missouri, Parliamentarian, presided, while Mrs. Luther Bach gave her report which was heartily accepted with a rising vote of thanks. Mrs. Bach announced a Special Committee to study the types of memorials suggested by the various States for the Jane Todd Crawford project. Reports from nine States were read by the Councilors and accepted by the group. Mrs. Arthur A. Herold, Shreveport, La., Chairman of the Legislative Committee of the Woman's Auxiliary to the A. M. A. made clear the law for study

groups on State Medicine as outlined by the National Auxiliary. She indicated that every physician's wife should be a registered voter. The Nominating Committee then presented their reports after which the new officers were installed by Mrs. C. W. Garrison, Little Rock, Ark. Mrs. Luther Bach presented the gavel to the incoming President, Mrs. W. K. West, Oklahoma City. After Mrs. Charles E. Oates presented resolutions of thanks and appreciation for the splendid entertainment, the Annual Meeting of the Auxiliary adjourned to meet in Memphis, Tennessee, in November, 1939. Mrs. W. K. West conducted her Executive Board Meeting at the Oklahoma Biltmore Hotel and explained her plans for the coming year. A delightful tea was given at the Country Club of Oklahoma City by the members of the Auxiliary to the County Medical Society on Thursday afternoon. The ladies were most gracious and were beautifully attired. The occasion was most enjoyable.

On Friday morning a drive was scheduled to Norman to visit the University of Oklahoma and to enjoy coffee at the home of Dr. and Mrs. W. B. Bizzell. And thus ended the delightful festivities of the Fifteenth Annual Session of the Woman's Auxiliary to the Southern Medical Association in which Kentuckians had certainly taken an active part.



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JANE TODD CRAWFORD MEMORIAL



PIONEER MOTHERS

Wind-swept and sun-baked and dark with bitter rain,
 The prairies lay before them as they crossed the unmapped loam—
 Beautiful and desolate, a silent fateful plain,
 Holding somewhere in its heart the precious thing called home.
 And the gentle loving women who had left their gentle hills
 Looked out from slatted bonnets, high courage in their eyes,
 Drawn forward by the promise of their own doors' new-laid sills,
 Of windows facing toward the sun, of walls that were to rise.
 Their faces white with strange fatigue, their babies at their breast,
 Their men beside them as they rocked across the unknown land,
 They dreamed of happy days ahead, of toil and peace and rest,
 With a never-failing God to hear, and help and understand.
 This is the land they left us now, O women of today!
 How can our hands be idle now? How can our courage die?
 This is the heritage they left the time they went away
 Upon a long trek through the pathless meadows of the sky.
 How can we fail these mothers who blazed a shining trail?
 How can we tear their altars down and raise none of our own?
 O sheltered women of today! We must not, dare not, fail
 The bravest, strongest mothers that the world has ever known.

By Grace Noll Crowell, Good Housekeeping, May, 1939

HISTORIAN'S CORNER

Dear Historians and Auxiliary Members:

Our Medical Auxiliary year's work is approaching the end most rapidly. In order that our National Historian, Mrs. John J. Ryan may include Kentucky in her National Historical Report at the meeting of the American Medical Association in New York City in June 1940, it is absolutely necessary that I, your State Historian, send to her the records of our State activities.

I am quite anxious that our State make creditable report. This I am assured can be done if each County and District Historian will send a record to me of this year's activities. May I ask that they be sent to me by the 20th of April so that they may be correlated and sent to the National Historian by the first of May?

It is suggested that each County and District use the following form in compiling her history:

A. Organization—When and by whom

B. Charter Officers and Charter Members.

C. State Officers for each year.

D. Projects and Interests

The National Historian writes:

"As Historian of your State Auxiliary will you prepare two histories—one of the year's work and one of your State from its organization; for the latter, have each County President or Historian write the history of her County Organization from its beginning, and you in turn condense it into a readable whole."

Please keep in mind also our own State Project for the year—the compilation of the histories of the lives of the pioneer doctors of Kentucky. May I ask again that each Historian urge her members to assist in this very essential research work. Let us honor the memory of these men by recording a brief sketch of their lives.

Sincerely,

(Mrs. C. C.) Julia Franklin Howard,
 State Historian.

**PROCEEDINGS OF THE
SEVENTEENTH ANNUAL MEETING OF
THE WOMAN'S AUXILIARY
to the
KENTUCKY STATE MEDICAL ASSOCIATION
Held at**

Bowling Green, Ky., September 11-14, 1939

(Continued from January, 1940 Issue)

DELEGATE'S REPORT

Annual meeting of the Woman's Auxiliary to the American Medical Association at St. Louis.

The seventeenth Annual Convention of the Woman's Auxiliary to the American Medical Association met in St. Louis, May 15-19, 1939, with headquarters at the Chase Hotel.

A beautiful tea, given in honor of Mrs. Charles C. Tomlinson, National President, at the home of Mrs. Willard Bartlett, opened the festivities, late Sunday afternoon.

Monday A. M. was given over to registration, viewing of exhibits and a Board of Directors Meeting.

Visits to private gardens were arranged for the afternoon. Busses left the hotel at 1:30 P. M. It was a beautiful afternoon, the gardens were delectable—and tea was served at each home. A large group of the visitors took advantage of this privilege.

Tuesday A. M. the annual Southern Breakfast given in honor of the National President was held in the Hotel. Mrs. Willis Kelley West, President of the Southern, presided. The program was unusual and whimsical. The speeches were all about favorite flower gardens of the speakers. Mrs. C. P. Corn told of the beauties of the Magnolia Gardens, of South Carolina. Mrs. Tomlinson spoke glowingly of a flower border she has spent years developing to perfection, and after she had us all envying her this rare gem, she admitted, so far, it was only in her mind. She hadn't turned a spade of earth or planted a seed!—Yet. Mrs. Tomlinson likened the Auxiliary to a garden. The flower beds at Churchill Downs were wittily discussed by Dr. Irvin Abell, President, A. M. A.

After the Breakfast, the convention was formally opened by Mrs. Tomlinson, the President, in the Regency room of the Hotel. Mrs. Willard Bartlett, general Chairman, of St. Louis, welcomed the guests, and explained the program. The first president of the Auxiliary, Mrs. Samuel Clarke Red, of Houston, Texas, gave a humorous response. An impressive In Memoriam Service was held for the deceased members. A copy of the resolution passed in memory of Mrs. Bunce, a for-

mer President, was sent to Dr. Allen Bunce, of Atlanta, Ga., Cello numbers were played by a ten year old St. Louis prodigy, Bobby La Marcina. White Carnations were placed in a white vase, and a moment of silence was given as a tribute. This was followed by the President's message. Mrs. Tomlinson said there was no limit to the possibilities of 20,000 women—and listed among ways of being of use: correcting of misinformation on Health Problems; combatting of evil legislation, and urged the aid and abetting of all the program of the parent organization, the American Medical Association. At the conclusion of the President's speech a rising vote of thanks was given her, for her years of splendid work.

The treasurer's report came next, and this delegate was certainly impressed by it. The treasurer reported she had \$6,059.14 in the bank.

There were many interesting facts brought out in the reports of committee chairmen. The Legislative Chairman said she hoped all Auxiliaries would continue their interest in Medical Economics. Twenty-four States have study groups on this subject and urged that 10 minutes, at least, be allotted at each meeting for new developments in Medical Economics. Concerning false or pernicious propaganda, she mentioned the book, American Medicine Mobilizes, which is so well written and sounds so true—one must be informed and on one's guard to know it isn't true. She asked us to keep informed on the Wagner Bill. The exhibit Chairman reported 29 states had sent exhibits to the convention. There was applause when the Organization Chairman informed us Delaware was 100 per cent organized. The Public Relations Chairman suggested many things Auxiliaries could do, such as employing teachers for hospitalized school children, preparing Christmas plays for children.

At noon, a luncheon, in honor of the past presidents was given at the St. Louis Woman's Club. In the afternoon the guests were taken on a conducted tour of St. Louis. At four o'clock the guests were entertained by the St. Louis University School of Medicine Woman's Club at tea.



Wednesday morning, we heard the interesting reports of State Presidents, and the installation of new officers. Mrs. Rollo K. Packard of Chicago, was installed as President. At one o'clock, Dr. Rock Sleyster, the newly elected President of the American Medical Association, and Dr. Irvin Abell, retiring President, spoke to us at a beautiful annual luncheon.

At three o'clock we went to the round table conferences. I heard Dr. Bauer, Director of Education, of the American Medical Association, speak to the joint Program Committee and Public Relations Committee Meeting. He urged the women to speak to woman's organizations on Health Subjects and suggested we make good public speakers of ourselves.*

In the evening we were entertained by the St. Louis Auxiliary at dinner and a style show. There were, it was estimated, between 700-750 guests served at the delicious buffet dinner.

Thursday, a steamboat ride was enjoyed and at 7:00 o'clock the Bring Your Husband Dinner was given and at 9:00 o'clock the usual President's reception and ball was enjoyed by a large group—and the 17th annual convention adjourned. I think all agreed St. Louis had been a gracious hostess.

Respectfully submitted,
(Mrs. Jos. E.) Hilda Wier, Delegate.

ANNUAL REPORT OF THE TUBERCULOSIS COMMITTEE

The work of the Tuberculosis Committee has made progress through the year, but without any outstanding achievements. In calling upon the local Auxiliaries the Chairman has kept in mind that local Tuberculosis Chairmen are busy people and are rendering voluntary service; therefore, unreasonable requests have not been made upon them. In spite of many difficulties we feel that the work has made reasonable progress through the year.

We have endeavored to secure representatives for the Tuberculosis Committee in every organization; however, we have not succeeded in doing this and will appreciate the assistance of the officials of all local Auxiliaries if they will see that their organization has a Tuberculosis Chairman and that the name is recorded with the State Chairman.

During the year four articles have been prepared for the Quarterly publication of the Auxiliary. They have been given much thought and have dealt with subjects that were of current importance at the time of writing. We know that many have read these

articles and commented upon them and we have reason to believe that their information and inspiration have been helpful in a general way in creating more interest in Tuberculosis Programs. In each of these articles an interesting phase of tuberculosis control was selected and it was dealt with in a way that we hoped would attract attention, create interest, give out information and inspire action among the readers. We are always glad to have comments, suggestions or criticisms on our work, because suggestive, friendly criticism is always helpful.

There has been very little space given to field reports, because field reports have not been coming in. We know, however, that many things of interest have been done by local Auxiliaries, but the stimulating value to others is lost, because it is not reported. It would be so helpful and refreshing if those who rendered service would report that service to the State Chairman.

The Christmas Seal sale in December gives us a splendid opportunity for service. The educational program put on at that time in connection with the Seal Sale program, offers many opportunities for special service by our local groups. This year we will have a splendid opportunity to again render a service. We trust that each organization will again identify itself with the Seal Sale group in its respective community and try to make this a better Seal Sale than last year. Last year they had an 18 per cent increase. We must not fall down this year. The service rendered in connection with the Seal Sale last year has helped to make possible the splendid program of the Kentucky Tuberculosis Association through 1939.

During the Early Diagnosis Campaign of 1939 many of our locals responded beautifully to the appeal of the program, but it would have been so much better had they written in and reported what they had done.

Many of our Auxiliary Members were in attendance at the Southern Tuberculosis Conference that met at the Brown Hotel, September 19-26. We appreciated their presence there and trust that some of them will be able to attend the Southern Tuberculosis Conference that meets this year, October 4, 5 and 6 at Charleston, South Carolina. It is a lovely place to visit and a nice trip. Perhaps, they can plan a vacation so as to take in part of this program. They will be welcome. The more people know about tuberculosis the more interested they will become and it has been gratifying to find groups of women turning their attention toward the Tuberculosis Control Program and thus find-

*Policy changed: Auxiliary secure speakers from Medical Society.

ing pleasure in service.

During the year two special articles were prepared in cooperation with the Public Relations Chairman, for the use of women who were willing to speak in the interest of Tuberculosis Control. Assistance has also been given to radio programs. Fifty-three letters have been written to local Chairmen and appropriate literature has been distributed on many occasions. It has been gratifying to know that service has been rendered, even though reports have been meager, because of the failure of local Chairmen to write about what they were doing.

Respectfully submitted,
(Mrs. L. E.) BEULAH GRACE SMITH.

Reports from Counties

REPORT OF CAMPBELL-KENTON AUXILIARY

The Campbell-Kenton Auxiliary held but four meetings last year as we were without a president most of the year. Mrs. Stratton moved away shortly after being installed and the vice-president, Mrs. C. A. Menefee, was called to Texas to attend a sick brother.

However, we carried on about our usual amount of work. We served the Medical Society in November and December with home-made cakes, ice cream, coffee and cocoa; sent a box of books, toys, candy and clothing to the Frontier Nursing Service; and sent seven glasses of jelly to each orphanage in Campbell and Kenton Counties.

Mrs. Dawson made and donated sixteen stockings partly filled with candy. Mrs. Baron donated tangerines and each member donated a ten cent gift, these to go to the sixteen patients in the Covington Kenton County Tuberculosis Sanatorium.

Several members worked on Cancer Control and on the Booth Memorial Hospital Drive.

The colored population formed an Auxiliary and have been doing good work in Cancer Control and Tuberculosis Control among their race.

Respectfully submitted,
(Mrs. H. C.) EDITH M. WHITE.

REPORT OF THE FRANKLIN COUNTY AUXILIARY

The Franklin County Woman's Medical Auxiliary was reorganized on January 11th, 1939. Therefore, this report covers only the eight months of work done since that date.

A complete staff of officers has been elected, all committee chairmanships have been filled and an Advisory Council has been ap-

pointed by the Franklin County Medical Society.

The Auxiliary now has twenty-one paid memberships.

Dues for the year have been sent to the State Treasurer.

Two original poems, one short story and one picture feature, together with more than twenty news items have been contributed for publication in the Quarterly. Five donations of one dollar each—have been secured for the Quarterly.

The Legislative Committee has been filled with an equal number of Democrats and Republicans and is prepared to assist in securing the passage of any health legislation desired by the State Medical Association which may come before the next General Assembly.

Two shipments of flowers have been sent for planting along the Jane Todd Crawford Trail. One large shipment of jonquil bulbs, one shipment of iris and a few shrubs.

Thirty books have been contributed to the Jane Todd Crawford Library. This collection of books included works by Kipling, Sir Thomas Moore, Longfellow and others of note.

Our group has contributed \$5.00 to the Jane Todd Crawford Memorial.

Our Auxiliary has contributed \$15.00, through the Salvation Army, for the care of a tubercular child. Our committees are organized ready to assist in this year's sale of Christmas Seals.

Our chairman of publicity has secured excellent space on the front page and on the society page of our local paper. More than twenty notices with two large write-ups and one picture have been carried.

As our reorganization took place too late in the year for the observance of Jane Todd Crawford Day, we secured the consent of the State Chairman to have a joint observance of Jane Todd Crawford Day and Doctors Day.

Excellent papers were read on Jane Todd Crawford, Doctor Ephraim McDowell and Doctor Thomas Walker. Much historical data was included in these papers.

Twelve speeches have been delivered by our public relations committee. Speakers have offered their services to all schools and organizations.

A large mass meeting was arranged at which Dr. Irvin Abell was to have spoken on cancer control and Doctor Pate, of the State Board of Health, on the treatment and control of venereal diseases. The ministers of all the churches, including the Catholic priest, had agreed to help at this meeting. Also, all heads of local organizations were to be pres-

ent. It was planned to pass a resolution at this meeting pledging all organizations in this community to devote one program a year to the discussion of health problems. Unfortunately, because of a conflict with some church meetings, as well as to the fact that the speakers could give us no other date, this mass meeting was postponed. It will, however, be held early this autumn. In the meantime our members are contacting all organizations and securing pledges for health programs.

Our Auxiliary cooperated to the fullest extent with the Women's Field Army Drive for the elimination of cancer.

Our speakers offered their services and our members assisted in a house to house canvas as well as in the distribution of literature.

Our membership contributed \$6.00 to this work.

In accordance with the requirement of the State organization we have a study class. We have studied the health laws and we have kept a scrap book.

Our local objective is the building or buying of a small house to be used as an isolation home for patients suffering from highly contagious diseases. Our hospital has no provision for such patients.

Another local objective is to help the hospital for our Colored citizens. We are working on these two local projects.

Our organization has completed 24 layettes and a number of dolls and other toys for the Frontier Nursing Service.

For money raising purposes we have given several entertainments and now have in our treasury \$106.56.

The Franklin County Woman's Auxiliary has been both honored and happy to have our President, Mrs. Usher, Mrs. McCormack and Mrs. McCoy attend some of our meetings. Their presence inspired our women and created a determination to be worthy of such fine leadership.

Respectfully submitted,

(Mrs. Jos.) Frederica K. Barr, President.

REPORT OF GRAVES COUNTY

The Woman's Auxiliary to the Graves County Medical Society has met quarterly since October, 1938, and we will finish our year's work at the Annual Meeting in October, 1939.

We have striven each meeting for Auxiliary development.

The first meeting of the year was in the home of Dr. and Mrs. R. G. Ashley. At that time Mrs. J. H. Shelton was elected President for the ensuing year with Mrs. J. M. Mayer as Secretary-Treasurer; the other of-

ficers were elected at the next meeting, December 13, which was Jane Todd Crawford Day, observed in the home of Dr. and Mrs. W. J. Shelton with a covered dish luncheon. Christmas suggestions were evident in the decorations and in the delicious refreshments. A business meeting followed the luncheon with Mrs. J. H. Shelton, the President, in the chair. Officers elected were: Vice President, Mrs. Ray Pryor; Corresponding Secretary, Mrs. W. T. Vaughn; Historian (re-elected), Mrs. G. T. Fuller; all of Mayfield. Committee chairmen appointed were: Jane Todd Crawford Memorial, Mrs. M. W. Hurt; Tuberculosis, Mrs. H. H. Hunt; Hygeia, Mrs. J. W. Shelton; Public Relations, Mrs. H. V. Usher, Sedalia.

Doctor's Day, April 13, was observed by Graves County Auxiliary with a Program Tea at the home of Dr. and Mrs. H. H. Hunt. Mrs. J. H. Shelton, President, presided at the meeting. Mrs. H. V. Usher, our State President, gave an interesting sketch of Dr. Thomas Walker, the first white man to build a house in Kentucky. It was voted that Mrs. Usher's sketch of the life of Dr. Walker be submitted to our local paper for early publication.

Graves County Auxiliary has made many developments under the supervision of Mrs. H. V. Usher, our wide-awake State President.

At the Program Tea, Mrs. D. H. Ray, wife of Dr. D. H. Ray, City Physician, gave interesting items of her trip to Williamsburg, Kentucky. Mrs. G. T. Fuller, Graves County Historian, gave several sketches of Pioneer Doctors. Members of Graves County Auxiliary donated individually to the Jane Todd Crawford Fund.

The Auxiliary sent a Christmas box to Frontier Nursing Service, Hyden, Leslie County.

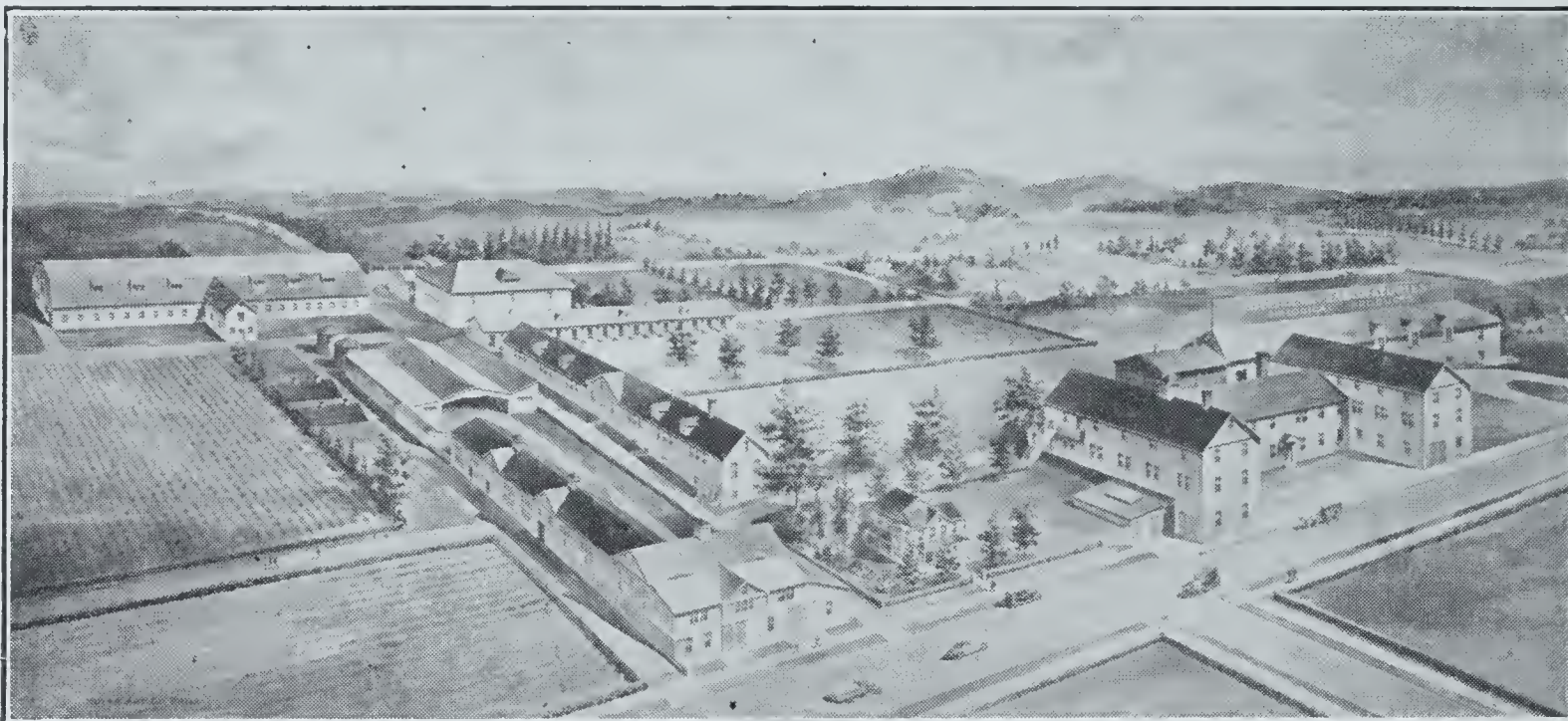
The Auxiliary will finish its Scrap Book, Cancer Control, and Tuberculosis Campaigns through civic organizations.

The Graves County Auxiliary contributed to the Quarterly and also sent news items from the County for each Quarterly.

The Auxiliary will finish its Scrap Book in time for the meeting in Bowling Green, and has also contributed two Children's Posters for the Exhibit there.

Graves Auxiliary has twelve paid-up members, and three interesting honorary members, namely: Miss Margaret Lee Flynn, granddaughter of the late Dr. S. J. Matthews, who delivered the Mayfield "Quints"; Mrs. Laura Stokes Skinner, the daughter of the pioneer, Dr. C. J. Stokes and sister of the late J. B. Stokes.

(To Be Concluded in July Issue)



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SMALLPOX CAN BE PREVENTED by the use of Smallpox Vaccine (vaccine virus)

TYPHOID FEVER CAN BE PREVENTED by the use of Typhoid Vaccine (plain or combined).

All school children should be protected against these three diseases before they enter school in the fall.

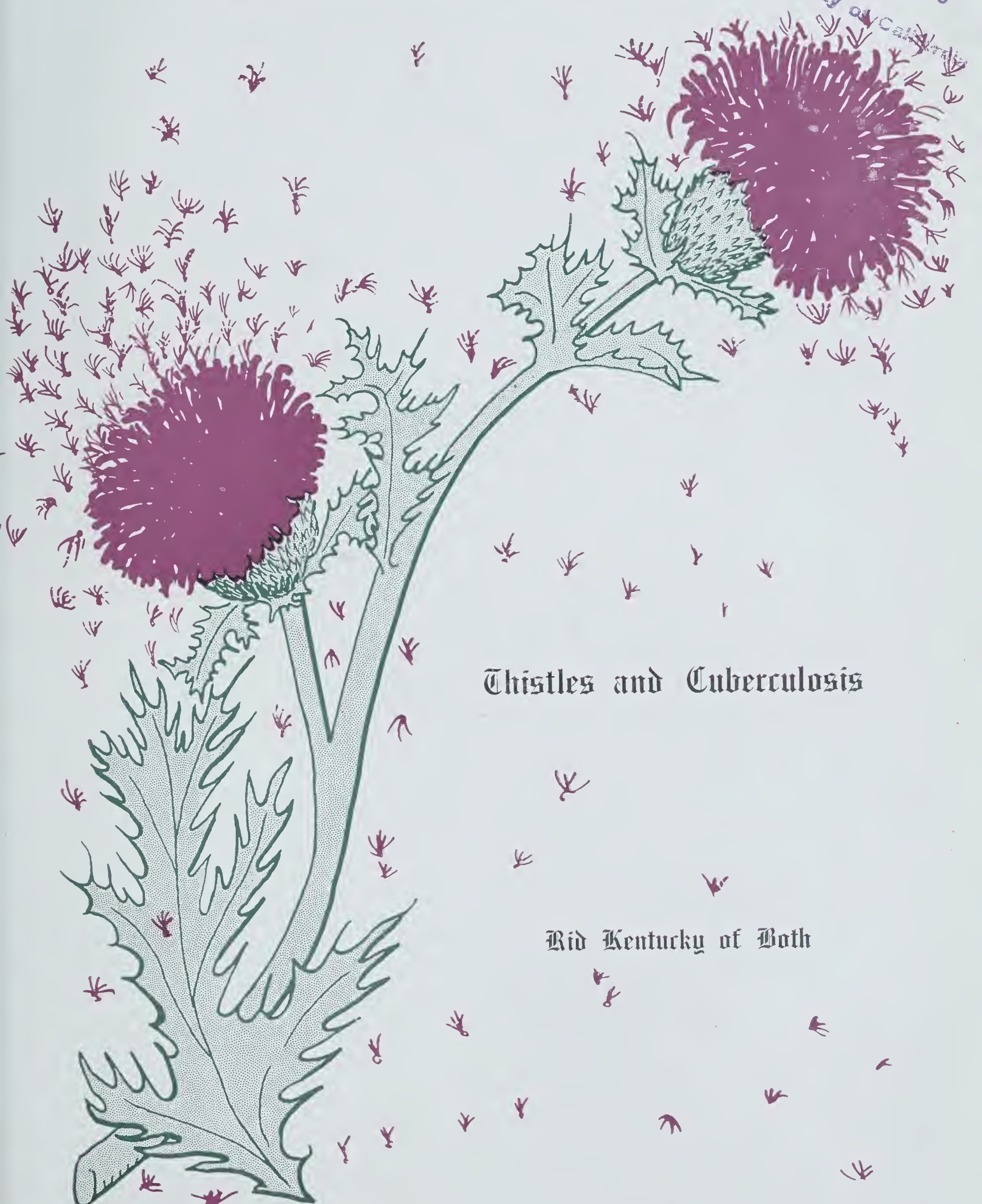
SEE YOUR PHYSICIAN



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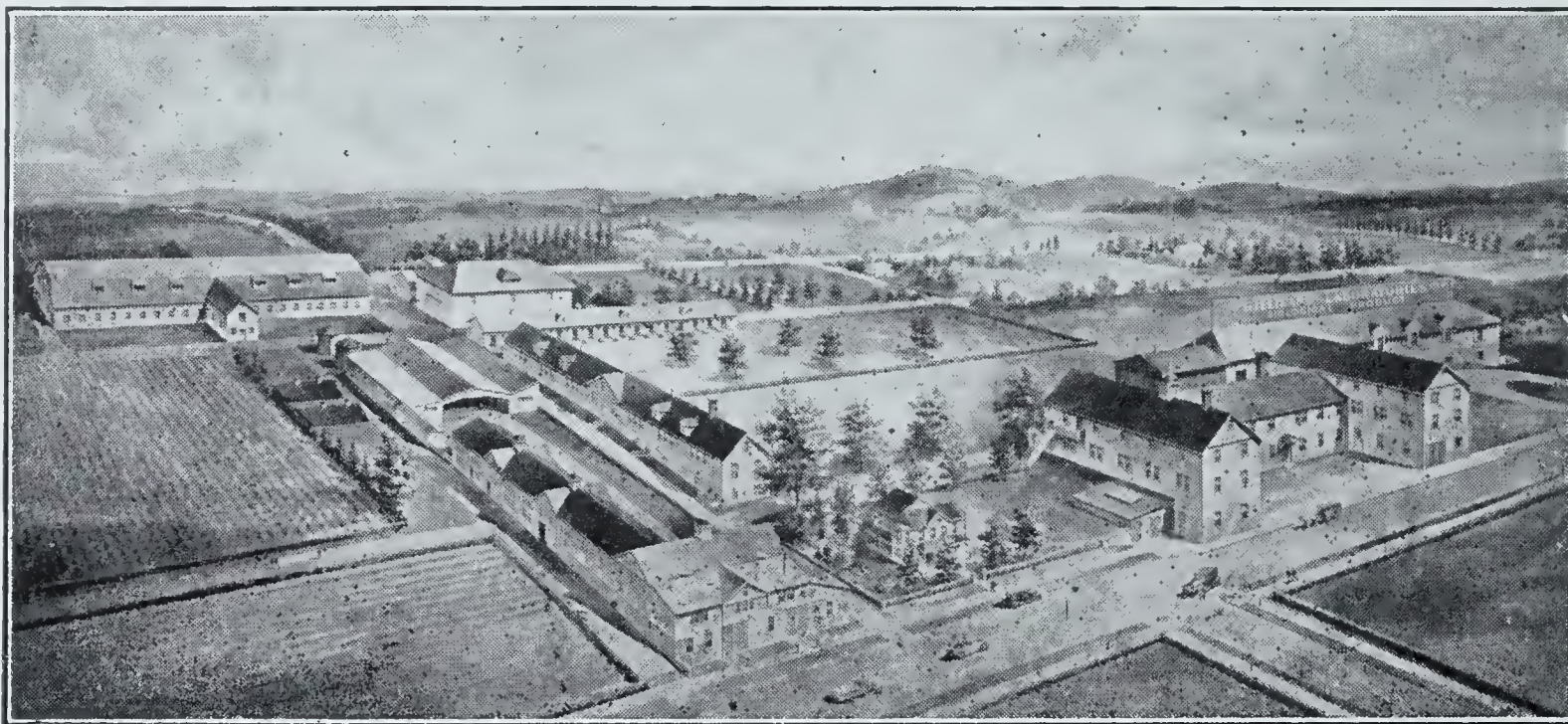
KENTUCKY MEDICAL JOURNAL—PART II
WOMAN'S AUXILIARY SECTION

Medical School Lib
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Thistles and Tuberculosis

Bid Kentucky of Both



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MARIETTA, PA.

KENTUCKY MEDICAL JOURNAL—PART II

WOMAN'S AUXILIARY SECTION

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GOD'S TOKEN—THE MOON

Mrs. Sidney J. Meyers, Louisville

God set the moon in the sky for Faith
To strengthen the troubled and tried,

God set the moon in the sky for Hope
Which in faint hearts must still 'bide,

God set the moon in the sky for Love
Which makes the world sad or gay,

God set the moon in the sky for Peace
To light, for distressed souls, the way.

PRESIDENT'S MESSAGE

Mrs. R. T. Layman, Elizabethtown

When this message reaches you there will remain before us only two months more of our Auxiliary Year! Let us renew our activity and make the last period of our work the best! Also, the Annual Meeting of the American Medical Auxiliary will be over. I am hoping all Members will enjoy the privilege and the pleasure of attending this Meeting in New York, June 10-14, and that I may meet you there, where I am proud to make a report of your work.

Then next, we look forward to our own Annual State Meeting, which is to be held in Lexington, September 16-19. That date will soon be with us. Mrs. John Blades, President-Elect and Program Chairman, is working hard hopeful that this may be one of our best conventions. She is arranging a very interesting program and pleasing entertainment. (See p. 78 for Preliminary Program.)

May I remind all State Officers and Chairmen and County Presidents that I need their reports for the year by August First, in order that I may write the President's Report for the House of Delegates?

May I, also, remind each of you that the Achievement Contest closes with your work at the Annual Meeting? So, do send your reports to Mrs. H. V. Usher, Chairman of Achievement Project, regularly each month so that you may receive all possible credit.

I want to thank every member for her share in making it possible to list Kentucky with the active State Auxiliary organizations. From your many kind messages, I am sure you know how extremely difficult it has been this year for me to carry-on. Without your sympathy and understanding help, I just could not have done it. Thank you, all of you, for your many kindnesses.

At our State Annual Meeting in Lexington, September 16-19, I am hoping to meet each one of you.

Thinking things out alone on the Barrier, I became better able to tell what in the world was wheat for me and what was chaff. I learned what the philosophers have long insisted—that a man can live profoundly without masses of things.—Admiral Richard Byrd—"Alone."

-:- EDITORIALS -:-

GIVE OF THYSELF!

This is a sad and dark hour. We cannot see beyond the clouds. It is a dark hour—particularly to us—for again, in our lifetime, it brings suffering in its most horrible form to the Allies with whom we worked in war service, both at home and overseas. We think you feel, as we do, that their present need calls urgently for all the help this country can give that they may win this fight which menaces our civilization as well as theirs. The decision as to how and when that aid can be given is not in our hands, although it is our responsibility, as citizens of a free and independent State, to share in formulating a public opinion based on clear thinking, for constructive action, and a realization of our own danger.

Meanwhile, beside cash contributions—always acceptable—there is something definite and useful at hand to do. First, we can do our own jobs better, improving and increasing results. Then, we can work cheerfully in unison with others, doing bigger and better jobs that help more people.

The American Red Cross, in whose service we were all enrolled 21 years ago, has received the most pressing call for help. Workers are urgently needed. We can think of no better way to honor the memory of our Auxiliary Members who have passed on than for us, who remain, to reconsecrate ourselves to the service to which they gave themselves so willingly, so effectively, in the busy canning, knitting, sewing, bandage-rolling, surgical-dressing-making years of 1915-1918.

We can, we must, we do have faith in God, the Heavenly Father, and know that in His own good time, all will be right with the world, His world, for:

“—our times are in His Hand

Who saith, “A whole I planned—trust God:
See all, nor be afraid!”

OUR NATIONAL PUBLICATION

The June Bulletin of the American Medical Auxiliary—Volume I, Number 4—is filled with excellent Auxiliary material helpful to all Auxiliary Members. One Dollar sent to the Press and Publicity Chairman, Mrs. James P. Simonds, 25 East Walton Street, Chicago, will bring you this publication of our National organization for a year. Mrs. Simonds capably edits the Auxiliary news from all over the country which shows the varying activities, as well as the unifying projects, of Auxiliary organizations throughout the United States.

A COMPLIMENT

A gracious compliment to one of our poets, Mrs. M. C. Darnell, Frankfort, and to The April Quarterly is the reproduction of Mrs. Darnell's poem—I LOVE OLD DOCTORS—in the Spring edition of The Bulletin of The Frontier Nursing Service, Inc., Mrs. Mary Breckinridge, Wendover, Kentucky, Editor. Thank you, Mrs. Breckinridge.

STATE FEDERATION WOMEN'S CLUBS

The State Federation of Women's Clubs met at the Brown Hotel, Louisville, May 8, 9, 10, for the Annual Convention. Mrs. T. Carroll, Shepherdsville, President, presided with grace and skill. Excellent speakers enlightened and entertained the evening audience, open to the public, including Mrs. H. G. Reynolds (Grace Morrison Poole), honorary State President, Paducah; Mrs. T. V. Moore, Miami, Mrs. H. B. Ritchie, Atlanta; Mrs. F. R. Clausen, Milwaukee, Dr. Copeland Smith, Washington; Mr. Ernest R. Rosse, Philadelphia. Mrs. E. D. Memory, Louisville, was Convention Chairman; Mrs. A. T. McCormack, Governor, Third District, Official Hostess.

Most of the meetings were held at the Brown Hotel but one day was spent at the beautiful Crescent Hill Woman's Club House. Garden Tours, a trip to Churchill Downs, where some guests saw their first Kentucky horse race, Tea at Glenview, the home of Mrs. Samuel Hikes and another Tea at the University of Louisville as guests of Dr. and Mrs. Raymond Kent with a delightful hour at the Speed Museum were some of the outstanding events. Mrs. Wayland Rhoads, Lexington, was elected president and installed at the last meeting.

DOCTORS DAY

Congratulations to the Georgia Medical Auxiliary, the originators of the Observance of Doctors Day! Their excellent suggestion has been adopted in the Medical Auxiliary of practically every Southern State since their initial observance of Doctors Day on March 30, 1934.

And now, comes National consideration.

On May 20, 1940, Senator Bilbo of Mississippi, introduced the following joint resolution in the Senate (S. J. Res. 256) which passed May 28th.

Resolved, etc., That the 22nd day of June in each year is hereby designated, and shall hereafter be known as, Doctors Day, in commemoration of the great sacrifices and untiring efforts and devotion of the members of the medical profession in performing their duty to humanity by caring for the sick and injured in times

of individual need and during periods of pestilence, war, and other disasters and catastrophes.

Sec. 2. The President is authorized and requested to issue annually a proclamation calling upon officials of the government to display the United States Flag on such day and inviting the people of the United States to observe such day in an appropriate manner.

NATIONAL HOSPITAL CONSTRUCTION

The National Hospital Construction Bill to promote National health and welfare (S.3230) through appropriations of funds for the construction of hospitals passed the Senate on Memorial Day, May 30th.

This bill was sponsored by the American Medical Association and by the American Hospital Association.

ANOTHER PHYSICIAN HONORED

Georgia has gained honor for Dr. Crawford W. Long through philately.

Congratulations, again, to Georgia! For, on April 8, 1940, appeared a new two cent postage stamp bearing the genial likeness of Dr. Crawford W. Long, who discovered anesthesia in his home town in Georgia on March 20, 1842, the day our pioneer heroine of surgery, Mrs. Jane Todd Crawford, died in Indiana.

All physicians and their families will rejoice in this new honor to Dr. Crawford W. Long.*

(*How many readers recall the editorial PHILATELY on p. 57 of the April, 1939, issue of this publication?)

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OUR BUSINESS

Mrs. Wm. H. Emrich, Louisville

While journalists, columnists, radio commentators and news analysts are daily turning out "high command communiques" and "correct analyses of the European news," we must go steadily on with our task of editing, publishing and circulating our Quarterly Auxiliary publication.

"If we can keep our heads while all about us are losing theirs," while propagandists are deliberately bewildering and confusing us; if we can keep our faith in God and man it is not inconceivable that we women of the Medical Auxiliary may play an important role in building the peace which is sure to follow this ruthless war.

Physicians' wives, mothers, sisters and daughters have seen life and death through the eyes of their men; since the days of the pioneer physician they have helped their men minister to a suffering and stricken humanity. Today their duty is clear; these helpmates are answering the appeal of the American Red Cross to relieve the suffering and misery of war-torn Europe and Asia.

In other groups there are other men and women ready to serve in this great emergency; they are adjusting and re-organizing their businesses to supply not only the needs of a ravaged foreign humanity, but are admirably doing their part to keep the home fires burning. They are our Advertisers, a most vital force in maintaining supply and order in our homes and institutions.

Quarterly readers will not forget that the wheels of business must turn; that our Advertisers are counting on us to help in making them turn. Buy from them, then save labels, wrappers and saleslips of Quarterly advertised products or service. You have two months more in which to save for the Radio Contest, which will end in August. The rules for entering are to be found in the April issue of the Quarterly. Read them carefully. Look for the announcement of the winner in the October issue of the Quarterly.

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**PRELIMINARY PROGRAM
EIGHTEENTH ANNUAL MEETING
of the
WOMAN'S AUXILIARY
to the
KENTUCKY STATE MEDICAL
ASSOCIATION
LEXINGTON**

Monday, September 16, 1940

9:00 A. M.—4:00 P. M.

Registration Daily—

(Every woman is requested to register immediately upon her arrival.)

**Monday, September 16
12 M**

Quarterly Luncheon (Subscription) Mrs. Arthur T. McCormack Louisville, Presiding

**Monday, September 16
2:00 P. M.**

Red Room LaFayette Hotel

Study Class—Our New Hand Book—

Miss Grace Stroud, Louisville, Chairman

Mrs. Stephen McCoy, Louisville

Mrs. A. T. McCormack, Louisville

**Monday, September 16
3:45 P. M.**

Red Room LaFayette Hotel

Pre-Convention Board Meeting—

Mrs. Reason T. Layman, Elizabethtown,
Presiding

(All county presidents, state officers and chairmen are urged to be present. All members are invited.)

**Monday, September 16
8:00 P. M.**

President's Report to House of Delegates

Mrs. Reason T. Layman

**Tuesday, September 17
9:00 A. M.**

Joint meeting with the Kentucky State Medical Association, Installation of President of the Kentucky State Medical Association.

General Meeting, Open Session

**Tuesday, September 17
9:30 A. M.**

Red Room, LaFayette Hotel

Presiding Officer Mrs. Reason T. Layman
Elizabethtown

Invocation Rev. O. R. Crockett
Pastor Methodist Church, Lexington

Music

Welcome — Mrs. Thomas M. Marks, Lexington

Response — Mrs. Samuel Flowers, Middlesboro

Roll Call and Parade of Counties — Miss Grace Stroud, Louisville

Minutes of the Seventeenth Annual Meeting

Report of the President — Mrs. Reason T. Layman

Report of Committees:

Arrangements—Mrs. Charles A. Vance

Credentials—

Messages from Kentucky State Medical Association

Dr. John W. Scott, Lexington, Retiring President

Dr. Austin Bell, Hopkinsville, Incoming President

Messages from the Advisory Council

Dr. Virgil Kinnaird, Lancaster

Dr. Van A. Stilley, Benton

Dr. Arthur T. McCormack, Louisville

In Memoriam — Mrs. John Floyd, Richmond

**Tuesday, September 17
12:30 P. M.**

Subscription Luncheon Honoring Presidents of Auxiliary to the Kentucky State Medical Association

Presiding Officer Mrs. Reason T. Layman

Invocation Mrs. J. R. Shacklette

Greeting by Each Past President

Reading—"Abe Lincoln In Illinois" — Mrs. George Smith, Lexington

**Tuesday, September 17
8:00 P. M.**

Public Meeting Kentucky State Medical Association

**General Meeting, Open Session
Wednesday, September 18
8:30 A. M.**

Red Room, LaFayette Hotel

Presiding Officer Mrs. Reason T. Layman
Reports—

Officers

Chairmen of Committees

County Presidents

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Reports—

Delegate, Woman's Auxiliary to the American Medical Association—Mrs. Reason T. Layman
 Councilor, Woman's Auxiliary to the Southern Medical Association — Mrs. J. M. Blades
 Unfinished Business

New Business

Report of Committee on Resolutions
 Report of Committee on Credentials
 Report of Nominating Committee
 Election of Officers
 Installation of Officers
 Address of the President

Mrs. John M. Blades, Butler
Wednesday, September 18
12:00 M

Drive to Doctors Shop, Harrodsburg
1:00 P. M.

Annual Luncheon

Beaumont Inn, Harrodsburg

Toastmistress.....Mrs. Reason T. Layman
 Invocation.....Mrs. Luther Bach, Bellevue
 Honoring our National and Southern Presidents

Mrs. V. E. Holcombe, Charleston, West Virginia

Mrs. Chas. P. Corn, Greenville, South Carolina

Greetings.....Mrs. R. T. Ballard, Harrodsburg
 Mrs. J. B. Lukins, Louisville
 Mrs. A. T. McCormack, Louisville
 Mrs. Luther Bach, Bellevue
 Mrs. R. L. Durham, Greensburg

Special guests representing Kentucky Medical Association

Dr. John Scott, Retiring President

Dr. Austin Bell, President

Advisory CouncilDr. Virgil Kinnaird

Dr. Van A. Stilley

Dr. A. T. McCormack

Drive from Harrodsburg to McDowell Home in Danville and on Jane Todd Crawford Trail

Wednesday, September 18

6:30 P. M.

Annual Subscription Dinner Kentucky State Medical Association

Thursday, September 19

9:00 A. M.

Post-Convention Board Meeting — Mrs. John M. Blades, Presiding

All Members Invited

CONSTITUTION AND BY-LAWS

of the

WOMAN'S AUXILIARY, KENTUCKY STATE MEDICAL ASSOCIATION

CONSTITUTION

Article 1—Name

The name of this organization shall be the Woman's Auxiliary to the Kentucky State Medical Association.

Article 2—Object

The object of the Auxiliary shall be to extend the aims of the medical profession, through the women members of families of physicians to other organizations which look to advancement in health and education; to assist in entertainment of State, District and County Society meetings; to promote acquaintanceship among doctors' families, that local unity and harmony may be increased.

Article 3—Membership

(a) The membership of the Woman's Auxiliary to the Kentucky State Medical Association shall be composed of the membership of the Woman's Auxiliary to the County Medical Societies.

(b) The wives of members of County Medical Societies living in districts where there are no Auxiliaries may be invited to affiliate with the nearest County Auxiliary; or they may, as Members of the State at Large, send dues, One Dollar annually, to the State Secretary.

Article 4—Officers

The officers of this Auxiliary shall be a President, a President-Elect, four Vice Presidents, a Secretary, a Treasurer, and a Parliamentarian. (A Corresponding Secretary may be appointed by the President.)

Article 5—Executive and Advisory Boards

(a) These officers, together with the County Presidents and the Chairmen of State committees and the last three Past-Presidents of the State Auxiliary shall constitute an Executive Board to conduct the business of this Auxiliary.

(b) A regular meeting of the Board shall be held immediately before and after each annual meeting of the organization. Special meetings may be called by the President, or may be called upon the written request of seven mem-

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JEFFERSON COUNTY MEDICAL SOCIETY

bers of the Board.

(c) Four members of the Board shall constitute a quorum.

(d) The Executive Board shall have all power and authority over the affairs of the organization during the interim between its meetings, excepting that of modifying any action taken by the organization, and provided that no debt or liability, except for current expenses, shall be incurred by the Board. The Board is authorized to transact business by mail if necessary.

Article 6—Elections

(a) All officers shall be elected by ballot.

(b) The term of office of the Officers, with the exception of the President-Elect shall begin at the close of the Annual Meeting at which they are elected. The term of office of the President-Elect shall begin at the close of the next Annual Meeting following the meeting at which she was elected. All officers serve one year, except the Secretary and Treasurer who may be re-elected.

(c) All officers should be present at the meeting at which they are elected.

(d) A nominating committee shall be elected by the Executive board to present a list of officers and representatives at the annual meeting; this committee to be composed of five mem-

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bers, not more than two of whom may be members of the Executive Board.

Article 7—Meetings

The meetings of the Woman's Auxiliary shall be held at the same time and place as the meetings of the State Medical Association. All members of County Auxiliaries have the privilege of attending the general meetings, but only accredited delegates may vote in the business of the meeting.

Article 8—Delegates

Each County Auxiliary shall be entitled to send its president and her alternate and one delegate and her alternate to each meeting. These accredited delegates with the members of the Executive Board form the voting body.

Twelve voting members shall constitute a quorum at any meeting of the organization, five of which shall be members of the Executive Board.

Article 9—Dues

(a) Each County Auxiliary shall pay annually dues to the State Auxiliary at the rate of fifty cents per capita; this to include the dues of twenty-five cents per capita to the Woman's Auxiliary, American Medical Association. The dues, payable January 1st, should be sent to the National Treasurer by the State Treasurer.

(b) Members of the State-at-Large shall pay their dues at the Annual Meeting or send them to the State Treasurer at that time.

(c) A newly formed County Auxiliary shall pay an initiation fee of \$2.00 in order to obtain representation at its first State Meeting. Thereafter, it shall pay its full membership dues at the rate of fifty cents per member to the State Treasurer at the end of the County Fiscal Year, as herein before provided.

Article 10—Amendments

This Constitution may be amended at any regular meeting of the Auxiliary, provided written notice has been sent each County Auxiliary, not less than two months prior to said meeting.

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Article 11—Parliamentary Authority

The rules contained in Cromwell's Compendium of Parliamentary Law shall govern this organization in all cases to which they are applicable, and in which they are not inconsistent with this Constitution and By-Laws.

BY-LAWS**1—Duties of Officers**

The duties of the President, Vice-President, Secretary and Treasurer shall be those which usually devolve upon such officers.

The duty of the First Vice-President shall be to act as chairman of organization.

2—Committees

The President and Executive Board shall have power to create such committees as become necessary to promote the welfare of the Auxiliary, providing, insofar as practicable, committees to correspond with the national standing committees.

3—Meetings

All meetings of the Auxiliary and the Executive Board shall be conducted according to the regular order of business and parliamentary laws which usually govern such meetings.

4—Quorum

Four members of the Executive Board shall constitute a quorum.

5—Amendments

These By-Laws may be amended at any meeting of the Executive Board or at the Annual meeting of the Auxiliary by a two-thirds vote of the members present, provided such amendments do not conflict with the spirit of the Constitution.

**PROCEEDINGS OF THE
SEVENTEENTH ANNUAL MEETING OF
THE WOMAN'S AUXILIARY
to the
KENTUCKY STATE MEDICAL ASSOCIATION
Held At**

Bowling Green, Ky., September 11-14, 1939

(Continued from April, 1940 issue)

**REPORT OF GRAVES COUNTY
AUXILIARY**

(Concluded from April Issue)

Items from the life of Dr. C. J. Stokes will be sent to Mrs. V. A. Stilley, Benton, for the Historical Collections. Already the biographies of two physicians have been sent to Mrs. Stilley, Historical Collections Chairman.

Three gifts were contributed to the Doctors Shop.

Respectfully submitted,
(Mrs. J. H.) Clara Shelton, President

**REPORT OF HARDIN COUNTY
AUXILIARY**

With Mrs. Garnett Bale presiding, our first meeting of the year was held on Thursday, September 28, when arrangements were made to furnish milk to five underprivileged children. Assistance was given in the crippled children's clinic held for Hardin County in Elizabethtown. The Auxiliary also assisted Health Chairman of the Elizabethtown Woman's Club in sponsoring a public health talk on Tuberculosis by Dr. John B. Floyd.

Jane Todd Crawford Day, December 13, was observed with an all day sewing party at the home of Mrs. Wm. R. Bethel where pot-luck dinner was served. There were 14 present. Our Secretary, Mrs. John Irwin Taylor, read a story of Jane Todd Crawford. Eleven pairs of pajamas, six sheets, 4 pillow cases were made and 6 dolls dressed.

With Mrs. R. T. Layman as Chairman, our Auxiliary assisted in the sale of Christ-

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mas seals in Hardin County. Hardin County has \$290.00 in the Christmas seal fund.

A box was sent to Hazelwood Sanatorium containing pajamas, sweaters, towels, toilet articles, a doll for a ten year old girl and toys for a nine year old boy. Each of our indigent tuberculosis patients was sent a box of useful things, as well as fruits for Christmas. Their drug bills are paid by the Auxiliary.

In February a carnival was held to raise money, netting \$46.00.

In April, Doctors Day was observed, honoring Dr. Thomas Walker, with a dinner and program at the home of Dr. and Mrs. George Bradley. Eighteen were present.

Mrs. George Bradley was invited to speak to the Hardin County Medical Society on Auxiliary aims and work.

The Auxiliary treasury has \$70.00 with which to work.

Hardin County sent \$10.00 for the support of The Quarterly this year.

Respectfully submitted,

(Mrs. George)

Lottie Tabor Bradley

REPORT OF JEFFERSON COUNTY AUXILIARY

With the leaders receiving the customary cordial support of its active membership, the Woman's Auxiliary to the Jefferson County Medical Society desires to report that for the year just ended we believe much has been accomplished to the credit of the Auxiliary. All divisional activities have been carried out with complete harmony and manifest interest on the part of the officers, the Board and the committees.

The Jefferson County Auxiliary continues to operate under the Constitution and By-laws that constitute the counterpact of the Constitution and By-laws of the Jefferson County Medical Society and the Advisory Council, representing the Medical Society, has responded to all our calls for counsel with helpful suggestions. The Jefferson County Medical Society has always been generous with the Auxiliary support and at the Annual Meeting of the State Society last year, the entertainment features of the local Auxiliary were supported most cordially by the committees of the Medical Society that worked in connection with the entertainment features.

The routine activities of the Auxiliary for the current year began with the active committee support to the Jefferson County Tuberculosis Association, in helping that organization put on its annual Christmas Seal Sale; twelve of our active members served in the booths located in various parts of the city, working under the splendid leadership of Mrs. Dusch.

Another activity of the Auxiliary for the month of December, and one in which we take great pride, was that of collecting Christmas toys and supplies for mountain children in the region where the Frontier Nursing Service operates. The Sewing Group of the Auxiliary had an all day meeting preparing and wrapping these toys and supplies and arranging for their transportation to Mrs. Breckinridge at Wendover. This has become an annual feature of the Auxiliary


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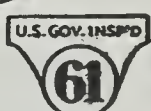
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and Mrs. Breckinridge has been very cordial in her expressions of appreciation.

Another Auxiliary contribution on behalf of unfortunates is the cooperation with the Kentucky Society for Crippled Children. Our Public Relations Chairman meets with a group from the Crippled Children's Society from time to time and extends, on behalf of the Auxiliary, whatever aid and encouragement is found to be of the most advantage.

At the suggestion of one of the members of our State organization, a plan was worked out and put into effect whereby the wives of internes in the various hospitals in Louisville were entertained at a tea held in the Kentucky State Medical Association Building, at which time these young women were given an opportunity for an acquaintance with a large number of resident doctors' wives. Nearly all of the past presidents of the Auxiliary were in the receiving line at this time, and after acquaintances were established, the tea developed into a very delightful occasion. The tea table was presided over by Mrs. W. E. Gardner, wife of President of the State Medical Society, and Mrs. Oscar O. Miller, wife of the President of the Jefferson County Medical Society; Mrs. J. Paul Keith managed the guest book. There was a good attendance of wives of internes, and an invitation was extended to them to attend the monthly and quarterly meetings of the Auxiliary; a number of them have accepted this invitation from time to time.

During the early part of the calendar year, under the leadership of Mrs. Dusch, a group of doctors' wives was mobilized to assist the Cancer Prevention Committee of the State Federation of Women's Clubs in their campaign against this dreaded disease. Mrs. Dusch's group was responsible for the raising of \$35.00 for a contribution on behalf of this campaign.

Too much praise cannot be given to Mrs. J. B. Lukins, who has been untiring in her work in the Doctors Shop. She and several other women of Louisville spent a day at Harrodsburg, and with the aid of some of the Mercer County Auxiliary members, cleaned show cases, and labelled all articles in them, hung pictures, and painted the inside of a cabinet to be used as a bookcase. Mrs. Lukins and her aides are to be congratulated on their efforts to make the Doctors Shop one of the

most successful of the Auxiliary activities. A visit to the Doctors Shop will afford you much pleasure and will be a liberal education on the progress made in medicine.

Our Auxiliary is most fortunate in having a member of such literary talent as Mrs. John K. Freeman, Historical Collection Chairman. Mrs. Freeman, with the cooperation of Mrs. John Rogers, has assembled eight biographies of Jefferson County Doctors thus far for 1939, bringing the total up to one hundred and fifty-seven. Mrs. Freeman describes her work as most fascinating and the search for data as exciting as a treasure hunt.

Compliments to our Hygeia Chairman, Mrs. M. H. Mathewsian, for her splendid endeavor to win the fifty dollar (\$50.00) prize for obtaining most subscriptions to this magazine. Mrs. Mathewsian was eight (8) subscriptions short of winning this grand prize. Not a meeting passes but that several new subscriptions to Hygeia are reported by this chairman; nineteen subscriptions have been secured this year.

One branch of our Auxiliary of which we are justly proud, is the Sewing Unit under the chairmanship of Mrs. F. Parks Ogden and, during her absence from the city, Mrs. George Leachman. This group of busy workers reported more than four hundred (400) articles have been made this year for the following institutions: Susan Speed Davis Home, Deaconess Hospital, City Hospital and the Kosair Crippled Children's Hospital. The members of this unit gave unstintingly of their time and talents to accomplish such a vast amount of work as this result readily shows.

Another popular unit of our Auxiliary is the Study Group, and Mrs. Octavus Dulaney, Chairman, selected the subject "Preventive Medicine" as her theme throughout the first six months of this year. In January Mrs. Blackerby reviewed the book "The American Doctor's Odyssey," and then current events

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followed. In February Dr. A. O. Pfingst gave a splendid talk on "Sight Saving Classes." At our March meeting we were fortunate in having Dr. T. J. Crice speak on the ever interesting subject: "Psychiatry," followed by a ten minute resume on the National Health Program by Dr. P. E. Blackerby. In April Dr. Emmet Horine lectured the group on "Prevention of Heart Disease" and illustrated his speech with motion pictures. The May meeting came during National Child Health Week, so Dr. J. W. Bruce chose as his subject, "Getting the Child Ready for School." The latter two gatherings were attended by many members of other interested groups and clubs at the invitation of our Public Relationship Chairman, Miss Grace Stroud. For the summer months the Study Group disbanded.

The Auxiliary resumed its active work in September and the Study Group began its activities concurrent at this luncheon with the quarterly meeting of the Auxiliary. Dr. A. E. Leggett addressed the Auxiliary group on the subject, "Preserving the Eyes," and gave a most informative and helpful address. Our own Mrs. Emmet Horine also addressed the Auxiliary on the subject, "Women in Democracy;" it is with a great deal of pride, in paying our respects to Mrs. Horine, that we say we have never had a more informative or entertaining address.

Following the quarterly meeting and the Study Group, the Auxiliary went into executive session and elected for the coming year the following officers:

Mrs. Bernard Asman, President-Elect.

Mrs. O. H. Kelsall, First Vice President.

Mrs. F. P. Ogden, Treasurer

Mrs. Octavus Dulaney, Secretary

Mrs. J. P. Keith, Parliamentarian

Mrs. Arch Herzer, Membership of the Judicial Council.

Respectfully submitted,
(Mrs. P. E.) Helen C. Blackerby

REPORT OF MARSHALL COUNTY AUXILIARY

The Marshall County Auxiliary reports an active work since the beginning of 1939. Meetings have been held once a month and five new members have been gained, bringing our total membership to eleven. Annual dues have been paid by seven members.

The April meeting was considered an outstanding one, inasmuch as the Auxiliary observed two important days in combination—the Jane Todd Crawford Day and Doctors Day. At this meeting our State President, Mrs. H. V. Usher, was our honored guest. Mrs. Usher extended words of encouragement to our members to do an active work this year.

The new officers for the year 1939 were elected at the April meeting.

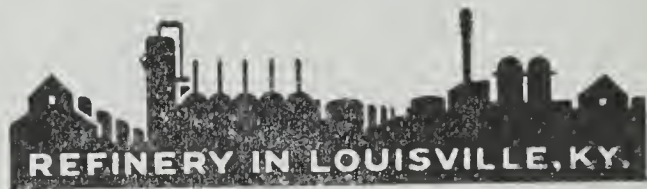
A good work has been done by the Woman's Field Army for Cancer Control with Mrs. L. L. Washburn as our leader. \$75.00 have been solicited so far this year.

At our June meeting one of our members was appointed as a committee of one to work out a program on Child Welfare to be given at the Woman's Club.

In July the Auxiliary together with the Medical Society gathered at the home of one of our members to enjoy a banquet dinner.



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The Auxiliary had the privilege at this meeting of lending an ear to the program of the Medical Society including the reading of a splendid paper on The History of Medicine, by Dr. V. A. Stilley.

The Medical Society will entertain the Auxiliary at dinner at our next meeting, and in turn the Auxiliary will provide the program for the evening.

Members of the Marshall County Auxiliary who do not have the privilege of attending the State Meeting this year wish to express their sincere regret for their absence.

Respectfully submitted,
(Mrs. Norvin E.) Fern Green, Secretary.

REPORT OF MADISON COUNTY AUXILIARY

Number of meetings held during the year: Four regular. (Two luncheons, one joint dinner with the Medical Society, and one tea). Nine Executive Board and Committee meetings.

Aims for the year: First, promotion of friendship amongst the Doctors' families in the County.

Second: Assistance in Tuberculosis Program being carried on in the County.

Third: Assistance in the Cancer Program. At the last meeting, previous to election of new officers for 1938-39, the question was brought before the members of whether "To Continue or Not to Continue the Auxiliary." Voted to continue the Auxiliary for one year with the proviso, vote to be taken again in September.

Majority ruled that Auxiliary be continued at last meeting of Fiscal Year, on September

8th, 1939.

Reports of Chairmen.

Treasurer reported all dues paid at the appointed time to State Auxiliary.

Tuberculosis:

Mrs. R. H. Cowley, Berea, and Mrs. Harry Blanton, Richmond, co-chairmen report:

Mrs. Cowley reported her Committee, working in the Berea section of the County, worked with the Christmas Seal Town Committee in the promotion of the sale of Seals. The committee offered services to the Chairman of the Campaign against Tuberculosis. The work of visiting families of reactors found during testing in the County by the Health Department, obtaining case histories, will be done this fall under the guidance of the Doctors and Nurses in charge of the health work in the County.

Mrs. Harry Blanton of the Richmond section reports: The Tuberculosis Committee has been in active cooperation with the Coun-



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ty Health Department in the effort to check tuberculosis in the County. Members of the Auxiliary will, under the direction of County Doctors and nurses do case work among the families of reactors, in an effort to discover, and cut down the number of cases of tuberculosis in the County, in a program to promote better public health. The Committee worked with the town committee in rechecking old lists and making new ones, addressing envelopes, and promoting the sale of Christmas Seals. Cooperated with the Elks' Club in a series of Charity Parties, proceeds donated to the Fund used for the benefit of patients at Hazelwood.

Doctors L. E. Smith and John B. Floyd gave illustrated lectures in High Schools, to Christmas Seal Committee, and several public lectures in the County. This work was done in preparation for the general tuberculin tests given to all children of school age. Members of the Committee acted as publicity agents, and were instrumental in having a series of articles published in the daily paper. Prominent space was given to dates of lectures and Clinics, stressing the need for work on Tuberculosis in Madison County. During the coming months we plan to make visits to parents of children having had a positive tuberculin test as shown by the school tests, with the purpose of instructing the parents as to the significance of a tuberculin reaction and to urge further investigation to discover the case that gave the child his first infection. The Health Department nurses will accompany each member on the first visits, to aid the Committee in learning the data to be obtained. We have made an extensive chart according to streets and families, assigning zones to the members of the Auxiliary.

Cancer Control Committee:

Mrs. Harry Blanton, Chairman, reports: A local unit of the Women's Field Army for Cancer Control was organized in Madison County this year. Representing the Auxiliary

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was Mrs. Harry Blanton and Mrs. John B. Floyd. Mrs. John H. Rutledge represented the Woman's Club, and Mrs. R. M. Phelps, the County Homemakers Club. Literature, posters and donation boxes were distributed by the Unit. About eighty dollars was realized by the Unit for use in Educational work. The Auxiliary contributed as a unit and individually. Mrs. E. H. Heller made a talk at an open meeting of the various clubs. Miss Issie Million made several talks before groups. Mrs. John B. Floyd distributed literature during a meeting of the American Legion Auxiliary. Mrs. Phelps distributed literature through the Homemakers Clubs. Mrs. Dodd of Berea made a very interesting talk to the Auxiliary at the regular meeting in May.

Jane Todd Crawford Memorial Committee:

Mrs. Shelby Carr, Chairman, investigated cost of planting one mile of trees on Trail. An estimated cost of 1,000 trees needed for planting a mile, was quoted at (20c per tree) \$200. At time of investigation The State Reforestation Reserve had no available trees. Permission was given by the Highway Department to plant the trees, but stated that work could not be done by them because of lack of funds at the time, and suggested that the matter be held in abeyance until some future date. At the May Meeting of the Auxiliary it voted to defer all action of work on Jane Todd Crawford Memorial until a later date.

Public Relations:

Mrs. Alson Baker, Chairman, reports better understanding amongst the members of the Auxiliary, as to the purpose of an Auxiliary, new and interesting friendships made in the associations with the Doctors' families.

Historian:

Mrs. R. M. Phelps, reports one scrap book finished. In it she has histories of Madison County Doctors, and clippings of interest to the Auxiliary and Medical Society.

Biographical work assistance was given to W.P.A. workers. Histories of all doctors practicing in Madison County were obtained.

Advertisements:

Efforts were made to sell advertisements to the two County Colleges. After due consideration, the schools refused because of an

agreement of the Board not to advertise in any but Educational magazines.

Hygeia:

No subscriptions sold. Donation of copies to the Public Library. Schools purchase subscriptions through a Magazine Combine once a year and were not interested.

Respectfully submitted,

(Mrs. John B.)

Barbara L. Floyd

SAMPSON COMMUNITY HOSPITAL

The Sampson Community Hospital Auxiliary consists of members from seven counties; has twenty-three members—eight new ones. We have seventeen subscriptions to Hygeia, five of which are in schools and one in public library. During the year the Auxiliary held ten meetings.

Having been represented at the Annual Meetings of the State and American Medical Auxiliaries, we had interesting reports from both.

We sent a donation of flower seed for "The Jane Todd Crawford Trail;" also some cash for the Jane Todd Crawford Fund. We observed Jane Todd Crawford Day on December 13, with a luncheon at the Norris Nurses Home, followed by a dramatization of "Jane Todd Crawford." After the playlet, we wrapped Christmas packages for the patients at Hazelwood. During the Christmas season the Auxiliary sent gifts and greetings to some tubercular patients in the county. Daily papers were also sent some of the patients. Members of our Auxiliary assisted in the sale of Christmas Seals.

We gave linens to the Health Department for distribution among indigent patients. Our Auxiliary sponsored a contest for the city and rural High Schools, for the best essay on the subject "Care and Prevention of Tuberculosis."

The Auxiliary gave donations of magazines to the Sampson Community Hospital at different times during the year. For one of our programs, Miss Peak, Health Nurse from Monroe County, gave us a detailed account of the work that "The Crippled Children's Commission" is doing in Kentucky. Later, when the Crippled Children's Clinic was held in Glasgow, the Auxiliary was co-hostess with the Woman's Clubs to the Crippled Children and their mothers.

Our Auxiliary sponsored talks on "Cancer Control," given by one of our local physicians, and presented to both Senior and

Junior Woman's Clubs of Glasgow. We also assisted in the drive for funds for that work and contributed \$5.00 from our Auxiliary treasury.

Our Auxiliary gave books and some cash for the local graded school library. We had one advertisement for the Quarterly, two articles and several news items.

Doctors Day was observed by the Auxiliary by erecting posters on the streets against spitting on the streets. Some of the members listened to the WHAS radio program given by the State Auxiliary Radio Committee in observance of that day.

Through working with the County Health Department we were instrumental in getting an article in the rural schools' manual on "Care, Prevention and Control of Contagious Diseases." Also getting free material to each teacher to use in such work.

Our Auxiliary collected a number of biographies on the Pioneer Doctors of this section.

Respectfully submitted,

(Mrs. Clinton)

Georgia Richards

REPORT OF WARREN COUNTY AUXILIARY

The Warren County Auxiliary was organized last March with 20 members.

As we have listened to the reports of the Auxiliaries represented here, we have had a feeling of regret because we have not had a part in the worthwhile work you are doing. Yours is a work of love and unselfish service, and while the work of the Warren County Auxiliary has also been a labor of love, there has been in it an element of selfishness, because our major project, so far, has been planning for the pleasure and comfort of our guests who are with us at this time.

Respectfully submitted,

(Mrs. S. J.)

Martha Ann Martin,
Delegate

REGISTRATION

(Summary)

State Officers	12
Delegates	12
Alternates	6
Members (other than above)	34
Visitors	15

Total Number Registered.....79

Number of Counties represented.....25

(Proceedings Concluded)

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Radio Station WHAS. Louisville

Arranged and Presented by

Mrs. S. H. Flowers, State Radio Chairman

Assisted by Mrs. Alice Barksdale Roberts

(Carol Mason)

DR. GEORGE HARTT

C. Mason:

This is Doctors Day in Kentucky. . . . We are observing it to pay tribute not only to those men of today who minister to the sick and infirm but also to those gentlemen of the old school . . . the Pioneer Doctors. We have with us this morning a doctor's wife who is State Radio Chairman of the Woman's Auxiliary to the Kentucky Medical Association. She has had wide radio experience in women's and children's radio programs but today she will tell us what Doctors Day is and why we observe it.

And now here she is . . . Mrs. S. H. Flowers, of Middlesboro, Kentucky. Mrs. Flowers, it is with a great deal of pleasure we welcome you to this program. . . . and before you tell us about Doctors Day can you tell us just a little something about the Women's Field Army for the Control of Cancer? By an act of Congress April has been set aside as Cancer Control Month.

V. Flowers:

Thank you, Carol, for such a nice introduction. To speak of the activities of the Women's Field Army for the Control of Cancer on our Doctors Day Program is most appropriate. Both the Doctors and the Army, have the same objectives—That of saving human life.

Our very own Mrs. Grace Morrison Reynolds of Paducah, Honorary National Commander of the Women's Field Army for Cancer Control, sets forth six objectives whose first letters spell CANCER

C—Courage to fight a disease that in its early stages can be conquered.

A—An army of women ready and eager to enlist in this fight.

N—National mobilization yearly that we may ever be alert to the activities of the enemy.

C—Centralization of efforts in the State organizations.

E—Educational programs to arouse the Nation to the necessity of constant vigilance.

R—Recognition of the great blessing of health in the life of the individual, the community and the Nation.

These are the objectives of the Women's Field Army of the American Society for the Control of Cancer.

C. Mason:

And now about Doctors Day. Why do we observe it today?

V. Flowers:

In 1934 some women of the South felt that while most people are informed about the histories of kings, inventors and discoverers, very few of the struggles and sacrifices of the members of the medical profession are known. That same year the Woman's Auxiliary to the Georgia Medical Association passed a resolution designating one day every year as Doctors Day. They were the very first to observe Doctors Day. The idea aroused interest throughout the South and all the Southern States adopted the custom. It was in 1935 that the Woman's Auxiliary to the Kentucky Medical Association passed a resolution to follow the example of the Georgia Auxiliary.

The object of Doctors Day is to honor the profession, past and present; to study and commemorate its promotion of human health and happiness through the ages, and, in observing this day, to express our appreciation, respect, and love for the members of the medical profession.

This is Kentucky's fifth Doctors Day Observance, and I would like to review first, Carol, some of the hardships and some of the triumphs of the pioneer doctor.

Let's go with one of the pioneer doctors for just one day of his professional experiences. We start from his own log cabin and travel, not, on a smooth highway, but over an almost unbeaten path on horseback, to a fort, or station, or isolated cabin where his services are badly needed. His drugs are mostly herbs, gathered with his own hands. He may have other medicine but if he has, it was obtained with great trouble and unbelievable expense from some sister State. We find him to be a surgeon, as well as a physician, and his instruments are few and crude. He carries his precious stock in saddlebags that flap gently at the horse's side. At last we reach a cabin. We find that the family knows nothing of hygiene. The home is dark,

crowded, disease-infested. We look at the face of our pioneer doctor to find it determined, resolute. He faces his task bravely because he knows he is the only one to help the sick. We marvel because his own education is imperfect; and yet, he succeeds. Succeeds in the face of impossible odds because he meets the problems of life for himself and his people with a cool head and a stout heart. But when sadness comes to his cabin friends, as it often must, he stands sympathetically by—as they face, unafraid, the death he could not stay.

We learn that in the heart of this pioneer doctor is that love for his fellow man, that willingness to sacrifice his own comfort for others that in all ages has distinguished the true physician. That, Carol, is a brief picture of our pioneer doctor, the physician of his people.

C. Mason:

And whom have you chosen to honor today?

V. Flowers:

Today, we honor an Irishman, Dr. George Hartt. Dr. Hartt was the first physician to practice medicine in Kentucky. He came to Kentucky, from Maryland, with a party of Catholic emigrants in the spring, in the 1700's. He settled at Harrodsburg—or Harrods Station as it was then known. At that time, Harrodsburg was the only place in Kentucky, except Boonesborough, and perhaps Logan Station, where emigrants could enjoy any degree of security from the attacks of Indians. And, Carol, since the Kentucky Educational Association is in session in Louisville today, I think it apropos to the occasion to say that with Dr. Hartt, when he came to Kentucky, was Mr. William Coomes and his wife, Jane, for she was Kentucky's first school teacher. In 1779, Dr. Hartt moved from Harrodsburg to Jefferson County and he was one of the signers of the petition for the settlement of Louisville. A bill he sent to a patient in Louisville compares the trend of medicine and fees yesterday and today. The bill reads:

To Mr. George Clews	
May 23, 8 doses of calomel	\$240.00
4 blistering plasters	
for your child	240.00
	—
Total	\$480.00

Of course, the pay for such charges must have been in Continental money which was at that time sixty to one less valuable than silver. Dr. Hartt did not remain long in Louisville, but moved in May, 1783, to Nelson County and settled about one mile from Bardstown on a farm, a part of which became the burial ground for the parishioners of St. Joseph's Church. Dr.

Hartt was the first to be buried in this cemetery.

The contributions of many pioneer doctors of this State have left an indelible impress on the passing years and we remember them gratefully. But today—today, we thrill to the knowledge that there are shining instruments for every operation; there are new and dramatic discoveries of medicine for the cure of almost every disease; a public health service works night and day for prevention of disease, and our doctors are highly trained in the art of medicine. Highly trained but, like the pioneer doctor, still compassionate, still standing sympathetically by when their people face, unafraid, the death they cannot stay. To all of them we offer our grateful appreciation on this Kentucky's fifth Annual Doctors Day.

C. Mason:

Thank you, Mrs. Flowers, for your very interesting part in this broadcast. As a doctor's daughter, sister and niece, as well as your Radio Announcer in the daily program—Women in the News—your message has impressed me deeply, and I am sure the thousands out there listening in have enjoyed it too. We hope you will come back again sometime.

V. Flowers:

Thank you, Carol, and goodbye now.

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PUBLIC RELATIONS

Members of the Medical Auxiliary:

Chaotic times are upon us and we, as aides to Organized Medicine, want to do our part, not only bravely, but efficiently—magnificently! Anyone can get emotional, cry hate, arouse fury—but that will not feed a hungry baby, conserve health, or save a democracy! No one group knows so well as we that to get these things done we must keep our heads. So—one of the first important thing is to be calm; next, purposeful. Remember, Mercy and Love of humanity still exist in the world although they show but a feeble gleam beside the blaze of hate and ruthlessness that is slashing and burning Europe. Might we not appoint ourselves keepers of this gleam that we want kept brightly aflame?

It is because we in America are humanitarians that we have an amazing record for continuous improvement in the Nation's Health. In grave times, such as these, our men must turn their thoughts and energies into a concerted effort to defend our Nation. This is as it should be. But women, too, have been learning to accept responsibilities, and we can make it our responsibility to help preserve all health gains achieved. This is, peculiarly, as Auxiliary Members, our task. It is so easy to become careless of routine tasks in the agitation of a great emergency.

You can make sure that your clubs sponsor no questionable health program through the lack of knowledge—which unfortunately has happened in Kentucky. The public Relation Teas which your National Public Relation Chairman has urged have been very successful in some places. You remember—you invite the Presidents and Public Relation Chairman of all your local Women's Clubs once a year, have a speaker from the Medical Society speak and offer your services to the clubs in any of their health

activities, such as getting information: or tell the sources from which authentic health information may be obtained; and offer to provide speakers from the Medical Society for their local health programs.

Attend and support your local and State and National Auxiliary to the best of your ability so your organization can be of service.

To do these things it would be well to support our Auxiliary, forget our petty bickerings, rise above them all. How petty our contentions seem when viewed through the mirror of brutality that is sweeping other countries and crushing the happiness and lives of women who have done no more, no less to deserve it, than we! Someone has said the defense program of a Nation is not guns—but men! And these men must be men free from disease, mental, moral, physical, to carry the load of government and protect our country. Let us, working harmoniously together, make this our unceasing duty, our way of keeping humanity and the love of God alive in the world.

Faithfully yours,

(Mrs. Joseph E.)

Hilda Wier,

OUR COLD CAMPAIGN

Sedalia, Kentucky

February 7, 1940

My dear Mrs. Wier:

Your letter explaining the Cold Campaign reached me several days ago. I think it is a wonderful idea.

I read this to the Home Makers Club and talked to them about the danger of colds. Also, I presented this to my Missionary Society.

Last evening, Dr. Usher carried this letter of yours to the County Board of Health meeting and it was read. They stamped it with their approval. I will present it to the County Medical Auxiliary at our next meeting. I also intend to show it to our other doctors.

I mean to try and have it published in our local newspapers so that all its readers can see it.

Sincerely yours,

(Mrs. H. V.)

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prescribed correction.*

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ACHIEVEMENT PROJECT

Mrs. H. V. Usher, Sedalia, Chairman

Almost every item in the Achievement Project is being carried out by many of the Auxiliaries. Lectures are being given on prevention and control of Tuberculosis, Cancer, Syphilis. Programs are being given on Child Health and Welfare, Premarital Health Examination Law. Jane Todd Crawford Day and Doctors Day have been observed in various ways; dues paid early; news items being sent for publication in Quarterly; seed and plants sent for planting on the Jane Todd Crawford Trail. And, let us not forget to send contributions to our State Treasurer, Mrs. Luther Bach, for our Jane Todd Crawford Fund. We need money in this fund. All of these count on the Blue Ribbon Achievement prize.

Let me again insist that all Auxiliaries who have not reported their achievements please do so at an early date so that we may have a complete report for our State Meeting in September.

To my great disappointment, we had an incomplete report to turn into the National Program Chairman. I wrote to Presidents and tried to stress the importance of these reports that our State might show for the work it is doing. The results were—some reported at once, some reported late, others remained silent as they always do.

Let us wake up, Auxiliary Members, to the realization that so much depends on us as individuals, as well as an Auxiliary Body, that we are a part of the whole. It is impossible for the State Organization to exist without the County Organizations functioning. So it is just as impossible for the National Organization, the American Medical Auxiliary, to exist without the States doing their part.

May we not be satisfied to merely exist and float down stream with the tide, but, let us pull at the oars and reach our Goal in the Achievement Project that Kentucky may be listed at the top.

CANCER CONTROL

Mrs. Bernard Asman, Louisville, Chairman

CANCER COMMENTS

Now that the month of the Cancer Control Drive has past, I am wondering how many of us can say that we really and truly did our part toward fighting the spread of this dreadful disease. We were given many opportunities, especially in the enlistment campaign which will be used toward next year's educational campaign. Or, did we give any of our time to spreading the information that Cancer is curable when caught in time?

If we would only stop and think that within six months after the symptoms or signs show up, it may be too late for a permanent cure! We know by now that our Past State Commander, Mrs. Heller, gave her life in the performance of her duty—spreading this information and giving instructions on the subject.

Do not feel that you can give up talking about this subject since the Drive is over—not yet, as there is a very large percentage of the population that knows little, if anything, of the subject. And it is our duty as citizens, as well as members of physicians' families, to help our fellowmen toward the attainment of good health when that help may mean just a little information.

I am deeply grateful to each and everyone who helped me in this Campaign, and would appreciate receiving a report from all County Auxiliary Presidents or Cancer Control Chairmen of the work that was done on this Drive, if you have not already sent it to me.

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Tuberculosis



Mrs. Lucius Ernest Smith, Louisville, State Chairman.

A LETTER AND A LEAFLET



Miss
Ethel Cavanaugh
the Patient

"Education of the people and, through them, of the State, is the FIRST and greatest need in the prevention of tuberculosis." These were the words of Edward Livingston Trudeau, the first President of the National Tuberculosis Association. They were uttered by him when he chartered the course of this great Organization many years ago.

People must know the facts about tuberculosis,

and we must see that they are told, over and over again. We must tell them in a language simple enough to be understood by those for whom our message is intended. We must make the health message interesting and emphasize its importance in a way that will appeal to those who need it.

The possibilities of the written message and the printed page have not been fully appreciated by many of us. How many problems could have been worked out through letters if we had only taken the time and pains to express our interest in our unfortunate friends through a well-worded letter!

For the benefit of those who feel letters and leaflets are of little, or no value, I want to relate an incident that came to my attention recently. It has helped me to be more patient and has encouraged me to deal more kindly with others. I now pass it on to you.

September 29, 1931, Dr. L. E. Smith, Executive Secretary of the Kentucky Tuberculosis Association, received a letter from a girl in Western Kentucky. The letter painted a graphic word picture of an eighteen-year old girl, living with aged parents on a poor farm and under most depressing economic conditions. The family physician had given her up to die with tuberculosis. Her sister had been taken by this disease, and in desperation she appealed for help. She wanted hospitalization, but there was none for her. The only possible help for her was to make the most of her home resources, and these seemed to be very few indeed.

Immediately a full-page letter, full of encouragement and helpful suggestions, was writ-

ten to this unfortunate girl. Some literature was sent. Time passed and no news from the girl naturally left the impression that tuberculosis had claimed another victim.

In April of 1940 the silence was broken. The answer to the letter written in September of 1931 was received by the Kentucky Tuberculosis Association. It was a brief report of nine years in which struggle, sacrifice, determination, and almost super-human faith had fought a battle and won a victory over tuberculosis.

This girl was apparently at the end of the way. Her physician and her neighbors were in agreement on that point. There was no money, no outside help. Hemorrhage after hemorrhage told the story of the damaged lungs and the way seemed dark indeed.

But let us quote from her letter of April 15, 1940: "I am sending you a letter received from Kentucky Tuberculosis Association September 28, 1931 . . . At the time I was bed-fast. Running a high temperature . . . having hemorrhages. My doctor said I had a short while here. I never gave up. I wrote to you. By reading your letter of 1931 you can know the help promised. I tried harder. I had faith and courage, but it was hard . . . I was my doctor, my nurse. My daddy and brother built me a sleeping porch that answered the purpose. I got in my porch. . . . Laid flat on my back. Never turned on either side or raised up for six months. Ran a high temperature and coughed something terrible for a long time. At the end of two years I showed great improvement. . . . I stayed in bed another year before trying to get up."

And now the letter continues by telling how she slowly built up her strength, then how she caught the "flu" and later had ptomaine poisoning; how she struggled through the years overcoming these handicaps and how she had spent money for quack medicines that people persuaded her to use. Again quoting from her letter we read: "That was \$125 first and last. I took the B & M external remedy as far as I was able to endure it, and have seven scars, but had to quit."

. . . . "My daddy is old and the only one able to make a crop and not really able to do that. (One mule to make it with.) . . . This bad winter with not sufficient means to carry on Such as warm cover and the right kind of food I am in a run-down condition and have lost my appetite to a great extent. My

mother has waited on me faithfully until she is almost worn out. And I am asking you if it is possible to get me in a sanatorium, free of charge, to go through next winter so that I'll have what I need and the way I'll need it. I make it O K in warm weather."

To show how carefully she read the literature and followed it, let us quote: "Your literature says, Sun Bathing is of value in some forms of tuberculosis but should not be taken without direction from your attending physician. Since I'm my doctor, I wouldn't know. In what way would it be unadvisable other than exerting myself?"

And then she concludes: "I'm just here, and in the hands of my Lord And I believe my faith through Him is why I'm here. . . . My mother's and father's tender care together with my many valued friends and the good Lord is what has kept me on the sunny side this long, so if there's anything you can do for me for my benefit and mother's, words cannot say how much I would appreciate it. Trusting that your reward may be great for the literature sent me nine years ago when every single morning was a new beginning, but to me they seemed dull."

Upon receipt of this letter Dr. Smith arranged to have the public health nurse visit this home which was some two hundred miles away from Louisville. Quoting from the nurse's letter of April 25 (ten days after the receipt of the letter from the patient) we read: "The visit revealed that all she has written is very much the truth, and much more could be added to this. The people are in very poor circumstances, but have used their resources to the best advantage. The mother saying, 'Ethel would have frozen without the cliff.' It developed they had brought big rocks from the cliff and heated them and put them around her to keep her warm. She has stayed on the makeshift porch all winter, pajamas very thin and thin covers and a straw bed mattress. They are very uncomplaining and have used very good judgment all through these years."

It has been arranged to have her visit an X-ray Clinic in the near future, and I feel sure

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that the people who have learned of her faithful and almost unbelievable struggle through the nine long years will see that from this time forward she will have the help she needs and so richly deserves.

If one leaflet and one letter was sufficient to inspire this unfortunate tuberculosis victim to fight her way back to life and health again, I wonder how much has been accomplished by the eight million leaflets sent out by the tuberculosis associations of the Nation during the Early Diagnosis Campaign that has just closed.

Sometimes we are likely to become despondent. We, ourselves, often fail to read leaflets that are handed to us. We do not care until the disease knocks at our door or threatens some one dear to us; but when we see someone cast aside a leaflet without reading it, we are inclined to say, "What's the use? Literature doesn't pay."

The Great Apostle said, "Let us not be weary in well doing." When we read this story, let us benefit by it and go on with the good work. Let us remember the inspiring parable given by the Great Teacher about the sower who went forth to sow. He didn't know what the harvest would be, but he kept on sowing the seed; so your job and mine, dear friends, is to keep on spreading knowledge about tuberculosis. Then, some day we shall win in the struggle. Remember, the only way we can fight tuberculosis is with knowledge.

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It was time for our annual visit to father, an event which the children—Joe was then ten, and Sue eight years—looked forward to with such anticipation that they could hardly await the closing of school and such preparations as necessarily must be made for the three hundred and fifty mile trip. It was late summer this year before we could make the visit home.

From my window on the train I could look out upon the fields of velvety green, some turning a soft golden color that looked like a shower of pollen; trees full-leaved growing beside a stream of clear, cool rippling water, and others standing like waving sentinels from atop a distant hillside. I recognized a friendly little roadway over which I had once traveled. I saw little lambs and sheep grazing upon a nearby plain; at first they seemed but tiny specks of purest white dotting the broad green fields, and some, for a brief moment, would lift their gentle little heads from the green grass as our train sped by. With each mile that we traveled along the countryside and through the friendly little villages of Kentucky, there was unfolded such countless scenes of beauty—beauties for which my eyes and my heart had hungered many months. One after another I would watch these scenes disappear with the curling smoke of the engine, then find beyond a hillside some new vision of loveliness that had seemed a part of the distant horizon only a few moments before.

I had not found such an opportunity for reminiscing and quiet thinking for many months. To many people of the so-called Blue Grass Section, I know that this extreme western part of Kentucky would seem quite as much a part of the "backwoods" as would the most remote mountainous sections of our State. And after all, is not this a merely different pattern in God's own beauty and art of creation? For those friends and people who had never known the true and deep appreciation of this country, and the genuineness of the simple countryfolk who abide there, I could but feel a sense of pity.

Father was a country doctor—one of those valued and revered public servants, who with the passing of the last quarter of a century, has become almost a legendary figure.

Today, as I see the fine young graduates of our medical colleges, diplomas in hand, turn only to the cities, there to enter into the practice of what must always be one of the greatest professions of the world, can you not understand why my heart is sometimes heavy, knowing so well the need of these poor country people for the services that a physician could ren-

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der? They are far removed from hospitals, from the modern and costly equipment that may be found in the fine institutions within the cities. But it is here that the young physician could face the realism and the necessity for practical application of the science to which he has spent years of recent study; it is here that he could learn the greatest measure of responsibility for his fellowman, so dependent are they upon him, and there's something within the heart of a physician that will respond to that need when it is once felt. Is it any wonder, too, that I should question: Where is there a field that can offer a greater opportunity to one dedicating his life to the alleviation of suffering, than does the little countryside? The sphere is small, but the need is so great.

With the last few railroad miles, our eagerness to reach home became more and more intense. The train was slowly pulling into the station—slower and slower the wheels beneath us turned and then came to a stop. The three of us were awaiting that beaming welcome of Dad's, and just as surely as did we know that he, too, was watching each face that appeared in the doorway of the coach—and there he stood, his long lanky figure that always reminded me of Abraham Lincoln, his stooped shoulders, that determined chin, and the loveliest blue eyes that I have ever seen. And how his face would reflect the joy and gladness that he felt in our homecoming!

Each year brought to all of us certain changes that were evident, of course. It seemed to me that Dad was a little more stooped this year, and a little more tired and weary looking than when I last saw him, but as he gathered me up close in his arms, I felt that same sense of secureness that I had always known as a little child when he would hold me thus.

Joe—his first grandson and the pride of his heart, as well as mine—was now quite large enough to handle the luggage without the assistance of anyone. Both Dad and I had a feeling of great pride in his independence, as we watched his sturdy little body hurrying down the walk in front of us toward the waiting car, while Sue, her small hand nestled snugly within her grandfather's, trudged along beside us.

The drive to father's home—a distance of twenty-five miles—was soon covered, each moment filled with pleasant conversation, and a

supper fit for the gods was awaiting us there.

There was so much that we wanted to see and explore about the place, but feeling a bit of weariness from the day of travel, I took the children upstairs and turned them in. Those soft downy feather-beds—still one of the most cherished delights of their visits to the old home! How often have I endeavored to answer their query: "Mother, why don't we have feather-beds like granddaddy has at home?"

The following day was Sunday. I was awake at 6:00 o'clock feeling quite refreshed after nine hours of sleep and inhaling the invigorating and wholesome air of that country. My first sense of awakening was an aroma from the kitchen of something very delightful cooking—unmistakably, it was real country ham and coffee. I had no desire to remain longer in bed nor to even await the announcement that "breakfast was ready." I went downstairs to father's room, to greet him with my usual good-morning kiss, tiptoeing very carefully so as not to awaken the children—only to learn that they had been romping over fields, visiting the new baby calf and other things of interest for almost a full hour. When I pushed open the door of father's bedroom, I observed that he had an extra pillow beneath his head and shoulders, making a total of four—father always slept sitting up in bed—and he was deeply engrossed in the study of his Sunday School lesson. He had already planned that I should accompany him to the Sunday School and church services this morning, and when I answered that I would be ready on time, little did I know the feeling of genuine happiness that would come before the close of the day.

To a great many people, father appeared to have a very abrupt manner of speech, but I had been privileged on certain occasions to glimpse a most tender spirit, which he seldom permitted to rise to the surface of his rugged, individualistic temperament. He had a deep and obstinate love for the discussion of politics—as well as most any other subject on which any person would take issue with him. I noticed in very recent years, however, that he was less inclined to participate in these heated debates.

Though I had always been aware that he possessed certain deep-rooted convictions along the lines of religious principles, and often had I marveled at his knowledge of Bible history and the creeds and teachings of certain relig-

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ious faiths, yet he had always been accustomed to only the most irregular attendance at church services.

I enjoyed studying his countenance this morning during the breakfast hour while he was entirely unaware. Whenever we were privileged to have father at home to sit down with us at mealtime, the dinners on these occasions seemed a sort of ritual, lasting anywhere from thirty minutes to even as long as two hours. The fluffy golden brown biscuits, or the fresh luscious fruits and berries, ripened and gathered from our own garden, were really the least of our enjoyment at the dinner table. Father enjoyed conversation, and it was at such times that the entire family shared in the discussion of current events, or things of interest within the community, during which father would sip from three to four cups of coffee as we sat around the table.

On this Sunday morning, we started from home in ample time to make the drive leisurely to the little church eight miles distant. My face seemed to fairly tingle from the wind's caress as we drove along. A soft rain had fallen during the night and it gave an added freshness and a look of bright cleanliness to the fields, the trees, and the shrubs along the way. The temperature was pleasant enough that the men did not experience their usual discomfort in having to wear a coat to church on an August day—an article of clothing to which most of them were quite unaccustomed in the summer months.

The church was a very simple—but to me a very beautiful one-room structure of old red brick, its exterior walls covered with ivy. On the west side of the church stood two beautiful weeping willow trees, and their drooping branches seemed to lend a spirit of dignity and reverence as one approached.

I was proud of father as I walked beside him into the church. It was hardly time for the as-

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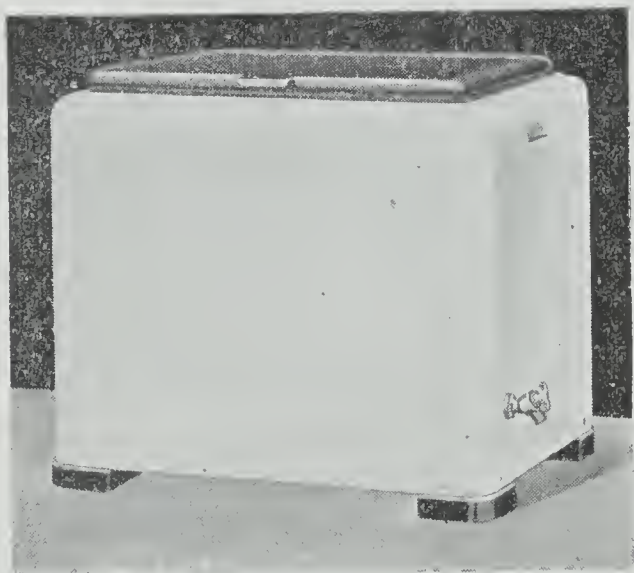
Abdominal

Supporters

sembling of the Bible classes, and the minister himself came down the aisle to greet us. He was a young man of perhaps thirty-five years. He had heavy dark brown hair, and eyes still a deeper brown. He was dressed in a suit of light tan gabardine, neatly pressed, comfortable for the summer day and quite in keeping with the community which he served. His voice was deep, smooth, and even; and his theological and literary background was superior to that of many of his predecessors. This little country church was his first pastorate since leaving the seminary and it afforded him an excellent opportunity to acquire certain experience in the ministerial work. His message was simple, sincere and impressive, though wholly lacking in any outbursts of oratory. His words were well chosen and understandable to the average child of ten years. Such a contrast, indeed, was his dress, manner and ideas to that of the elderly bearded ministers whom I recalled had filled this pulpit some twenty-five years before.

The little church, too, where today I found in its utter simplicity such profound peace, was as much a contrast to the stately spiral structure where I had for several years been accustomed to worshiping, as were my clothes to those of the simple countryfolk, all of whom I knew and loved. Their faces, though rugged, were those of honest, God-fearing people. Their

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children were dutifully obedient, clean, and some of the youths were extremely handsome. From a single glance at the fifteen-year-old boy who occupied the seat directly in front of me, I was convinced that his father or mother had given him his new hair-cut on the back porch of the farm home.

During the Sunday School period that followed, I must confess that very few moments did I actually devote in concentration on the particular lesson that was being presented. Instead, my eyes took in every change that had been made within this little church during the last two decades.

The little old organ, to whose accompaniment I used to sing when a girl in my early teens, was gone. In its place was a fine new piano but the tones of which could never excel the beautiful tones that pealed forth from the old organ, such as my mother had played. One of my girlhood friends was seated at the piano, and her eyes were centered upon me. The voices of the small congregation were uplifted in song. It was not my voice, alone, but my heart too responded to the melody of the beautiful old hymn, “More Love to Thee, O Christ.” Father’s deep bass, as he stood beside me, was as clear and pure as it had been in earlier years.

When the Sunday School lessons were finished, communion was then served. I could not help but notice how the congregation looked to father for counsel and for guidance in their simple worship, and I saw in their faces respect, admiration and love. (A country doctor is not only a family physician, but often the legal, financial and business advisor as well.) Father was one of the elders who presided at the communion service. It was father who offered the first prayer; it was father who took the first step, and others then followed in the dutiful ministrations of bread and wine to the congregation. All heads were bowed. The soft music did not come from the majestic pipe organ, such as we hear in the churches of the city, but it was tender and sweet.

Here among the people for whom my parents had labored long and faithfully, I found that indescribable something which I had not felt in the crowded church of the city. My heart was filled with gratitude that I could appre-

ciate and love as my parents had loved, the simple and humble beauty that was here, and silently my heart said: "O God, if I could but build here a shrine that would stand forever—a fitting tribute to Thee and to these fine, genuine, noble, and struggling people who abide within this countryside, retaining that same spirit that I find today within this little church!"

The offertory was being played. I closed my eyes through the remaining moments of peaceful meditation—it seemed that I was again beside my mother, as she sat in humble reverence. Her face, I could so clearly see. I could hear her beautiful, sad, and touching voice as she sang the church hymns in such clear and confident tones. Hers was always the sweetest voice in any congregation, and she sang with such feeling. My childhood memory of her had remained unchanged throughout the fifteen years that we had been without her.

Here today, it seemed that all strife and struggle ended. I heard the minister say, "A Christian does not hate his brother." How I wished that every person throughout the land might hear and feel the real depth of these simple words!

The sermon lasted no longer than thirty minutes, but before its close, I noticed two members of the congregation were fast asleep—too tired

I knew, from the week's arduous labor of harvesting the summer crops. I recalled that the ministers of twenty-five years ago had always preached for at least an hour, and sometimes two.

When the benediction had been pronounced, such warm and cordial handshaking followed, and so many invitations to the homes for "Sunday dinner." The genuineness with which these invitations were extended made us know and feel that they meant it, too.

On the homeward drive, we sat in utter silence through the first few miles. I knew that father had shared the same peace and happiness that was mine today. After a little while, father felt the urge and the necessity to pass some comment on the sermon, and he was compelled to take issue with the young minister on a few points. This, I enjoyed too.

I would that every Sunday might be as this! Today, I had not only communed with God, but my mother, too, was with me in spirit—and I had there beside me father.

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THIS WORK PAYS OUR COMMUNITY**Mrs. A. T. McCormack, Louisville**

The week beginning May 20th was observed throughout Kentucky as Come-And-See-For-Yourself Week when Works Progress Administration kept Open House for the Professional and Service Projects. Interested citizens were gratified to see the remarkable work accomplished and the fine spirit of the WPA employees who take genuine pride in their tasks.

It is important to remember that all these projects, for which WPA provides employees, are originated, sponsored, supervised and partially financed by State and local official sponsors. "America's Unfinished Business" is what many persons believe the WPA is doing. Certainly, these workers are busily doing many things that long have needed to be done.

Among these varying types of work, important health projects are found, important work for which no other available funds are at hand. These health projects are supervised by qualified, specially trained, physicians and nurses. There is no more worthy object than that of keeping people well and aiding in the restoration to health of those who are sick.

The Supervisor of the Kentucky State-Wide Health Projects, sponsored by the State Department of Health, is Mrs. Susan C. Fowler, wife of the late E. B. Fowler, Professor of English at the University of Louisville. Headquarters are with the State Department of Health at 620 South Third Street, Louisville.

Here, with seemingly better-than-human-brains-and-well-co-ordinated-muscles are amazing machines capably managed by WPA workers who compile all sorts of statistical data from the 87 Full-Time County Health Departments located in all parts of the State. Births, deaths, and reports on all types of communicable disease are some of the important data compiled. Especially valuable, is the compilation on syphilis cases, and the follow-up work done, for which detailed records are kept by number for each case. In fact, the majority

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of the WPA workers on health projects are clerical workers. Of great value to the individual County Health Department, are the clerical and clinical assistants supplied through WPA.

Laboratory work is aided by the WPA workers who wash test tubes and other glassware; do much record work, prepare containers for mailing, and the various routine tasks that release the bacteriologists and technicians for technical work, thus saving expensive time and effort for the purely scientific experts.

The new Pre-Natal Law, effective June 12th, and the Pre-Marital Law, effective January 1st, 1941, will be aided by laboratory tests, known as the Kahn Test, and will require a large force of laboratory workers.

Another WPA project, given previous mention in this publication, is the collection of medical historical data, under the supervision of Miss Louise Morel, for the purpose of salvaging and protecting Kentucky's medical data for the eventual writing of Kentucky's Medical History. This project has developed so far that already, a book has been compiled giving many delightful glimpses of the lives and problems of some early physicians in Kentucky. This book sponsored jointly by the State Department of Health and the Kentucky State Medical Association, is published by the Standard Printing Co., Louisville, and will cost \$3.50. It is named, **MEDICINE AND ITS DEVELOPMENT IN KENTUCKY**. (Write to the Kentucky State Medical Association, enclosing check for \$3.50 if you wish to purchase a copy.)

Testing of the hearing of school children by means of the **AUDIOMETER** is a new phase of the State-Wide Health Project, sponsored by the State Department of Health and supervised by the Louisville Board of Education, Mrs. Edith Caldwell, operating in the Louisville public schools. Soon, it is hoped, this work may be extended to other parts of the State.

Useful work is also being done at the City Hospital, Louisville, one of the newer projects being the making of surgical dressings. On Monday, May 20, first day of Open House, Tea was served to about 200 guests who had come to see the work of WPA, here.

Citizens may well take pride in these contributions of WPA to America's Unfinished Business in the field of health.

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HYGEIA
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Dear Auxiliary Members:

I am in receipt of a letter from our Circulation Manager, Mr. Fred Cargill, commending us for our co-operation in widening the HYGEIA work for 1939-1940.

In collecting material for my report to our National Chairman for the A. M. A., I find one of our County Auxiliaries did a very constructive piece of work by placing Hygeia in their Junior High School. The college and Public library in this city were carrying their own subscriptions.

In numbers we have fallen far short. I do hope that we will, everyone of us, resolve to do more to place Hygeia in all our schools and clubs this next year.

Sincerely yours,

(Mrs. J. Woodville)

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News From The Counties

BELL

The Woman's Auxiliary to the Bell county Medical Society was organized at the Cumberland Hotel, April 12th, at a luncheon meeting. Dr. A. T. McCormack, State Health Commissioner and Secretary to the Kentucky State Medical Association, was the main speaker. Dr. J. B. Lukins also appeared on the program. Dr. A. W. Cowan, President of the Bell county Medical Society acted as Advisory Council during the organization. There were eighteen doctors' wives, sisters and daughters present. The following officers were elected:

President Mrs. Adam Stacey
Vice-President..... Mrs. S. H. Flowers
Secretary-Treasurer..... Mrs. Edw. Wison, Jr.
Parliamentarian Mrs. Mason Combs
Historian Mrs. Woodbridge

Cancer Chairman..... Mrs. Jimmy Wilson
Child Welfare Mrs. Jacob Schultz
Doctors Shop and Jane Todd Crawford

Mrs. J. P. Edmonds.

Hygeia..... Mrs. J. S. Parrott
Legislation..... Mrs. Mason Combs
Publicity..... Miss Sunshine Colley
Program..... Mrs. Charles Stacey
Quarterly Mrs. H. F. White
Tuberculosis..... Mrs. A. W. Cowan

CAMPBELL-KENTON

Several Members of the Campbell-Kenton Auxiliary were active in the drive for funds for the Booth Memorial Hospital and in the Women's Field Army drive for funds for cancer control.

Mrs. Charles Baron entertained members of the Women's Field Army for Control of Cancer with a bridge party, proceeds being turned over to the Cancer Fund.

A talk on Venereal Disease Control, illustrated with a motion picture, was given by Dr. Votau before the Semper Fideles Class.

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Members of the Campbell-Kenton Auxiliary were entertained with a 6:30 o'clock dinner at the home of Mrs. J. E. Dawson who was assisted by Mrs. J. S. Faulkner. Proceeds were given to the Cancer Fund.

Talks on Control of Cancer were arranged for the Semper Fideles Class of Calvary Methodist Church, Bellevue, by Dr. Nathan Flax and for the Clara Cushman Missionary Circle, Bellevue, by Dr. J. N. Caldwell.

We are proud of the two sons of Dr. and Mrs. Luther Bach who have, again, received high honors in the State Musical Contest.

HARDIN

Mrs. Leslie Herd and children visited her mother, Mrs. Frank Sheperd of Cleveland, in June.

Mr. and Mrs. Wendell Layman of Prophetstown, Illinois, and Dr. L. H. Layman of Holden West Virginia, spent several weeks with their mother, Mrs. R. T. Layman.

Dr. George Bradley submitted to a sinus operation at the Baptist Hospital.

Dr. and Mrs. Millard Bethel of Concord, North Carolina, visited his parents, Mr. and Mrs. Wm. Bethel, for two weeks in May.



A reunion of class mates of Northwestern Medical School, Chicago met at the home of Dr. Garnett Bale. Visiting doctors and families were: Dr. James D. Bradley of Pender, Nebraska; Dr. Charles Vedder of Marshfield, Wisconsin.

JEFFERSON

Two interesting tours of inspection have been arranged for the Study Class by the committee composed of Mrs. J. B. Lukins and Mrs. Walter I. Hume, co-chairmen, assisted by Mrs. J. Paul Keith, Mrs. E. W. Adkins, Mrs. Oscar O. Miller and Mrs. Joseph E. Wier. In April the group visited the new Children's Center, a clearing house for dependent, delinquent and mentally deficient children, white and colored, between the ages of 4 and 17 years. The court sends the children to the Center where they are given both mental and physical examinations and their individual shortcomings and needs are studied. After several days they are placed either in private homes or at the Ormsby Village Home.

The building is well equipped and staffed with a Physician, Dentist, Nurse, Librarian, Recreation and School Teachers.

The same day the group visited the new Clarksdale Municipal Housing Project where several different size apartments were inspected, one arranged with furniture made with packing boxes, barrels and liberal amounts of cleverness and imagination.

In May the group enjoyed a tour of the beautiful gardens of Oxmoor, Hurstbourne and Speed Home.

A Tea was given at the City Hospital by the Mayor's Committee on Monday, May 20, and the Auxiliary was invited to view the WPA work. Similar projects were on view at the State Board of Health the entire week of May 20.

Over fifty pieces for layettes have been made for the Red Cross by the Sewing Unit during the past two months. In April the group met with the President, Mrs. Richard T. Hudson and Miss Grace Stroud entertained it in May.

Mrs. Henry Enos Tuley has returned after an absence of almost two years and is with her daughter, Mrs. Vincent Thomas, 5 Eastover Court.

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In June, Dr. and Mrs. John C. Rogers enjoyed a short visit from their son, Lieutenant Thomas Woodson Rogers, U. S. Navy, and Mrs. Rogers and children, Jane Douglas Rogers and Thomas Woodson Rogers, Jr.

Mrs. A. T. McCormack enjoyed a moonlight plane trip to St. Petersburg, March 23, and returned by day plane May 6, much benefitted by the rest and climate.

The annual luncheon of the Frontier Nursing Service, Inc., was held at the Louisville Country Club, May 28, when Mrs. Mary Breckinridge, Director, reported remarkable advances in progress of this pioneer work now, unfortunately, handicapped by the demands of war upon her staff of British Mid-Wife Nurses. Adjustments are rapidly being made, however, and this excellent work for mothers and babies will continue. Among those present were: Mrs. Henry Enos Tuley, Mrs. Wm. H. Emrich and friend, Mrs. Jas. P. Miller, Mrs. Louis Hackett, Mrs. Jos. E. Wier and sister, Mrs. H. V. Lancaster, Mrs. Lee Hamilton, Dr. Lillian South, Dr. and Mrs. Chas. B. Crittenden, Dr. and Mrs. A. T. McCormack, Dr. John R. Pate.

Our congratulations to Mrs. Woodford B. Troutman who has been awarded the \$500.00 first prize in a national exhibit sponsored for

Physicians and Physicians' wives. Her painting, *Deported*, is a character study of an old lady and was shown in the Cincinnati Academy of Fine Arts two years ago and this spring it was awarded a ribbon at the annual exhibit of the Woman's Club of Louisville.

"What's New" will reproduce the portrait on its cover at an early date and a reproduction will be hung at the Medical Association Building in Chicago.

Mrs. Troutman, a well known Louisville artist, is the wife of Dr. Woodford B. Troutman. She wrote of some interesting experiences in her painting career for the January, 1932 issue of the Quarterly and we are happy to hear of her success in her hobby.

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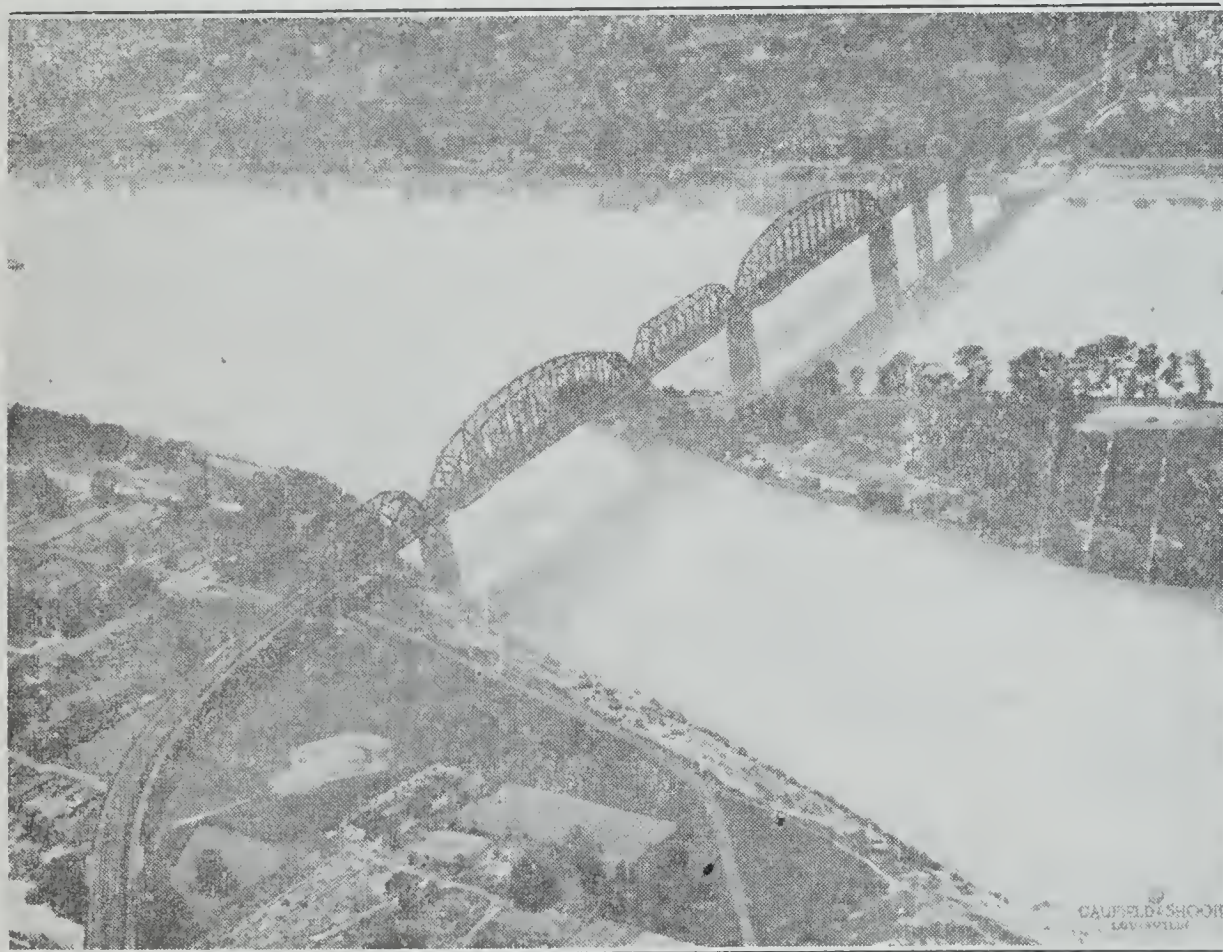
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MADISON

We have a bit of news from our Madison County Auxiliary—a prospective new member! For, born on May 13th, at Pattie A. Clay Infirmary, Richmond, was baby Anne Clay Blanton, weighing a little over six pounds, daughter of Dr. Harvey C. Blanton and Mrs. Blanton.

On May 14th, our Auxiliary held its Spring Luncheon at Boone Tavern, Berea. During the business meeting, we heard gratifying reports of the work, in both sections of our County, for the Women's Field Army for the Control of Cancer during April. The whole group is interested in this work and many Auxiliary Members assisted in the campaign. Mrs. John B. Floyd presented the little replica of the Jane Todd Crawford Cabin suggesting that it be used in the County Schools to teach the story to the children. However, since the schools are now closed for the summer, this model together with a copy of the radio dramatization of the story were placed in the exhibit room of the Berea College Library for the benefit of this year's students and for the summer students—many of whom come from the Jane Todd Crawford area.

Mrs. John B. Floyd attended sessions of the Annual Convention of the State Federation of Women's Clubs in Louisville, May 8, 9, 10.

MARSHALL

From December to April the Auxiliary was dormant, due to weather conditions and our Doctors not being able to have their meetings. On April 24th, we met with the Doctors for dinner at Benton Cafe, after which the Auxiliary met at the home of the Stilley's; our program chairman not being present, we at once went into business session for the election of officers for the year with the following results, President.....Mrs. V. A. Stilley, Benton 1st. Vice President—Mrs. L. L. Washburn, Benton Secy-Treas.....Mrs. N. E. Green (re-elected), Benton Jane Todd Crawford Chairman — Mrs. W. T. Little, Calvert City The President appointed Mrs. O. A. Eddleman, Historian,

Mrs. S. L. Henson, Chairman Public Relations.

May 30th we observed Jane Todd Crawford day and Doctors Day, together. Mrs. W. T. Little memorialized Jane Todd Crawford and Mrs. S. L. Henson, Doctors Day, using as her topic, Dr. George Hartt.

We are very happy to welcome Dr. and Mrs. N. E. Green who are moving from Calvert City to Benton in the near future. Also our congratulations to these nice people, they have announced the birth of a son on May 25th, Jan Calvert Green. As we go to press, Mrs. Green is expected to return from the hospital very soon.

Not being able to get in touch with our Treasurer we do not know just how many have paid their dues, but hope all have.

SAMPSON COMMUNITY

The Sampson Community Medical Auxiliary met April 9th at the Norris Nurses Home. Hostesses for the Afternoon were Mesdames John Dickerson and Rex Hayes. This was a public meeting and Dr. Clifton Richards spoke on Cancer, to a large number of members and visitors. Punch and home made cookies were served by the hostesses at the conclusion of the program.

Dr. and Mrs. Herbert Duncan, have moved from Munfordville, to West Virginia.

Miss Carolyn Howard, daughter of Dr. and Mrs. C. C. Howard, who graduated from High School this year, was hostess to the 1940 class of Glasgow High School, at breakfast at her home Thursday Morning May 24th.

Mrs. Clifton Richards, newly elected President of Glasgow Women's Club, attended the state meeting of Federated Women's Club, in Louisville May 13th and 14th.

The women of the different Clinic Clubs assisted the Sampson Community Medical Auxiliary in Sponsoring Clean-up Week in Glasgow. Everyone cooperated very nicely, and we are sure Glasgow will be a much better place in which to live, after having had its Spring cleaning.

The Sampson Community Medical Auxiliary met May 6th at 2:30 o'clock, with Mrs. W. A. Weldon at her beautiful country home "Adairland." There were 17 members present. Mrs. H. B. Ray of Tompkinsville read a paper on American Spies, and questions from the last Hygeia were asked. The Hostess served delightful refreshments during the social hour which followed the program.

Mr. William Depp of California is visiting his parents, Dr. and Mrs. C. G. Depp, of Hiseville.

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JANE TODD CRAWFORD MEMORIAL

INDIANA HOSPITALS HONOR NATIONAL HEROINE

The above is the title of a handbill widely circulated by the Indiana Hospital Association, in April and early May, in Indiana, a copy of which reached the Kentucky Chairman of the Jane Todd Crawford Memorial while in St. Petersburg, Florida.

On Saturday, May 11th, a glorious Spring day, Mrs. Bernard Asman, Mrs. J. W. Sams and Mrs. A. T. McCormack, with Mr. Charles Schweitzer as driver, motored the 150 miles to the Johnson Cemetery in Graysville near Sullivan, the county seat of Sullivan County, and attended the impressive dedicatory ceremony of the Indiana Hospital Association as the beautiful new monument was unveiled.

This monument replaces the modest white marble tombstone erected by Reverend James Crawford, minister for the Hopewell Presbyterian Church at Graysville, and with whom Mrs. Jane Todd Crawford lived her last years.

Dr. W. N. Thompson, Sullivan, who in 1921 found the grave and sent a photograph to Dr. August Schachner for his book—Ephraim McDowell, Founder of Ovariectomy with an Appendix, on Jane Todd Crawford and Mrs. O. Pfaff, Indianapolis, long interested in memorializing Mrs. Crawford, were present and described the plan to protect the old stone from the weather and set it on an incline, to facilitate the reading of the inscription, just below the front of the new monument. A grass plot surrounded with an iron fence is a part of their plan for further protection.

Many heroic and noted pioneers are buried

in this old cemetery, among them Reverend Hezekiah James Balch, the maker of the Mechlenburg Resolutions of North Carolina, May 20, 1775, which preceded the Declaration of Independence. Dropping his first name, Rev. James Balch spent many years in Russellville, Kentucky before going to Graysville, Indiana.



Monument dedicated May 12, 1940, by Indiana Hospital Association in Johnson Cemetery, Graysville, near Sullivan, Indiana.

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KENTUCKY MEDICAL JOURNAL—PART II

WOMAN'S AUXILIARY SECTION

THE MENACE OF THE UNCOVERED SNEEZE



Courtesy, Department of Biology and Public Health, Massachusetts Institute of Technology.

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To Escape Infection.

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OCTOBER, 1940



Mrs. Reason Thomas Layman
Elizabethtown
President, September 15, 1939-
September 18, 1940

PAST PRESIDENT'S MESSAGE

Mrs. R. T. Layman, Elizabethtown

I am very proud of the work that has been done this past year by the Woman's Auxiliary to the Kentucky State Medical Association. I want to express my sincere appreciation to every State Officer, Committee Chairman, County President and all Members for the generous help and splendid cooperation you have so loyally given and which made my work possible—notwithstanding great difficulties. Without your kindly understanding and aid, this year's administration would have been a failure.

Your reports are proof of the active interest you have in our program—The Achievement Project—which you have carried so well through this second year. Thank you, for making and keeping our record bright.

When this reaches you, I will have finished my year of administration as your President—the office of your greatest honor. It has been a real privilege to serve with you and for you. Now, I am back in the ranks, again, and will continue Auxiliary endeavor to the best of my ability for it is a pleasure to work with the Medical Auxiliary, the acknowledged aid of Organized Medicine, whose outstanding objective is Health Education, beneficial to each community where an Auxiliary exists.

The Auxiliary organization is young, yet. But eighteen years since it was first organized and it still suffers from growing pains! But, in these past eighteen years, Auxiliary Members have learned more about the profession of medicine and have developed a greater appreciation of the splendid, unselfish service rendered constantly by our beloved physicians to needy fellow citizens.

In what better way can a physician's wife, daughter, sister or mother serve her community than by active membership in a live, working Medical Auxiliary? Surely too, here is the way for us to serve with The Great Physician whose mercy and compassion is everlasting for even the humblest of all God's creatures. And, there is so much work that needs to be done. Work of all types through all sorts of ways! Something for each talent, however great or small that talent may be!

Grateful for all the honor you have bestowed upon me, and for all your many kindnesses, I thank you. And, I ask that you now pledge your loyalty to our new President, Mrs. John M. Blades, and that you give to her, as you gave to me, your wholehearted aid in making our organization the best possible Auxiliary of all State Medical Associations. Certainly, you will agree, the Kentucky State Medical Association deserves the best. So, you and I, should make sure that it gets the best.

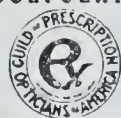
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KENTUCKY MEDICAL JOURNAL—PART II

WOMAN'S AUXILIARY SECTION

Published Quarterly Under the Supervision of the Advisory Council

Vol. IX, No. 4

Bowling Green, Kentucky

October, 1940

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PRESIDENT'S MESSAGE

Mrs. John M. Blades, Butler

Greetings Everyone! Are you ready to start the new year's work? Then turn to our program of work on page 113 in the October, 1939, issue, to the Achievement Project—County Auxiliary Development, which again this year with a few additions, lists our aims. Will you check the points that your Auxiliary did not make last year, and, as this year goes by gradually erase the checks as you meet the requirements? I am sure that if you do, your score will be higher than you ever suspected it could be and the work that you do will have a lasting effect upon the health of the people of Kentucky. It really pays to have a guide or plan. This outline, the Achievement Project for County Auxiliary Development, furnishes our guide for this year with additions voted at the Lexington meeting as recorded on page 117. The complete program in the Achievement Project will be published in the January, 1941, issue.

May I ask you to grant me a very special favor? Yes? Then, take the time to invite a doctor's wife from a nearby county, that has no organized Auxiliary to the County Medical Society, to come to visit your Auxiliary. Tell her about all the fine things that you are doing to advance the cause of health in Kentucky. Tell her how important it is that the public understand the platform of the American Medical Association. Perhaps she will get the needed inspiration and enthusiasm to go back to her county and organize an Auxiliary to her husband's County Medical Society.

I am sending my best wishes to you and your Auxiliary for a very successful year's work. If I can be of any service to you, will you let me know? Call me on the telephone, write me a letter or—just a post card will do. I shall be waiting to hear from you.

ATTENTION BOARD MEMBERS!

The Executive Board of the Kentucky Medical Auxiliary will hold a luncheon meeting at the Brown Hotel, Louisville, at 1 o'clock, Tuesday, November 12, preceding the Annual Meeting of the Southern Medical Auxiliary.

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SAY IT WITH FLOWERS

An ancient Persian poet said: "If thou hast two pennies, spend one for bread. With the other, buy hyacinths for thy soul."

Poetry, perhaps; but hard sense as well.

-:- EDITORIALS -:-

THE SOUTHERN HERE IN NOVEMBER

All Auxiliary Members and their husbands will be Louisville-bound soon for the Annual Meeting of the Southern Medical Association and its Auxiliary. Friends from all the Southern States will gather in Louisville, November 11-16, for the third annual conference. So—let's give them a real Kentucky welcome!

Mrs. Charles P. Corn, Greenville, South Carolina, the President, will preside at all Auxiliary meetings. Mrs. M. Pinson Neel, Columbia, Missouri, the President-Elect, will be installed toward the close of the session and will outline her plans for the next year's work at the Post-Convention Board Meeting.

IN THIS ISSUE

Of particular interest to all Auxiliary Members who hold office in County, District or State Auxiliary organizations, is the October issue of the Quarterly for in it will be found the Audit, the record of our financial transactions during the past year, and the Directory where all Members are listed, together with their mailing addresses, following the listing of the Officers, Chairmen and Advisory Council.

This is the ninth October issue containing this necessary information for orderly procedure and development. Other October issues contain the State Constitution and By-Laws, which this year was published, by request, in July because of the early date for the Annual Meeting.

DR. THOMAS WALKER HONORED

A bronze plaque showing a reproduction of the silhouette of Dr. Thomas Walker found on the cover of the October, 1934, issue of the Quarterly, was unveiled before an admiring throng of about 3,000 persons at the Dr. Thomas Walker State Park, near Barbourville, Knox County, on Sunday afternoon, June 30th.

Speakers were State Parks Director Mr. Bailey K. Wooton, Former Governor Flem D. Sampson, Mr. Elmer Decker, historian, and Dr. Arthur Thomas McCormack, State Health Commissioner.

Dr. McCormack is a Walker descendant, as is Miss Edith Wood, Middletown, a teacher at Okalona High School, who unveiled the plaque.

Following is an interesting item supplied by Mr. F. Marion Rust, Custodian of Walker State Park, who, with Mrs. Rust, lives at the Park and is always glad to point out the places of special interest to visitors.

First House Ever Built by a White Man In Kentucky

Walker State Park, Barbourville, Ky.
In 1750 when Virginia was a Royal Province

of the British Crown, the Loyal Land Company of London, England, sent Dr. Thomas Walker with five associates, Ambrose Powell, William Tomlinson, Colby Chew, Henry Lawless and John Hughes, across the Appalachian Mountains into the wilderness of Kentucky, to locate lands suitable for settlement.

They left "Castle Hill," Walker's home near Charlottesville, March 6th. After struggling through the rugged mountains, covered with heavy forest and dense undergrowth down through the southeastern end of the state and through eastern Tennessee, then a part of North Carolina, they observed the dip in the mountain range now known as Cumberland Gap. Pressing on through this gap, they came on down northeastward through the great gorge, until they discovered and named the Cumberland River after the Duke of Cumberland, a member of the British Royal Family. Due to heavy rains they were unable to cross and accordingly traveled on down the south side of the river.

Ascending Brush Creek, then Little Brush Creek, and on over the divide, they descended Swan Pond Creek to the river. Finding it too deep to ford, they made a bark canoe and crossed on April 23rd. After wading through the low marsh land and up on this knoll, they, in the next seven days, built a house 8 feet wide and 12 feet long; planted some corn and peach stones as well as killed many bears and cured the meat for use in further travel. On April 30th they left for continued exploration down through central and eastern Kentucky. Returning over the rough mountainous area of West Virginia they reached their point of starting on July 13th.

During the journey of 4 months and 7 days, they had killed 13 buffalo; 8 elk; 53 bear; 20 deer; 4 wild geese and about 150 wild turkeys besides much small game such as squirrels, rabbits, quail, etc. Dr. Walker stated in his Journal that they could have killed three times as many had they so wished. That the house was built on this spot is verified by folklore, proximity of the spring, and Dr. Walker's Journal, a copy of which is available in the office.

THE AUXILIARY IN ACTION

For heartening interest and intelligent action in the cause of community betterment, read about one of the summer activities of the Franklin County Medical Auxiliary on page 111.

The President, Mrs. Joseph Barr, is to be congratulated upon having such far-seeing, forceful Members as Mrs. John G. South and Mrs. F. M. Travis to work with her and lead in the improvement of the health and sanitary condi-

tions of their home-city. And, we, who live in widely scattered sections of the State, extend our grateful thanks for their leadership in promoting cleanliness and healthfulness in our Capitol City, the city to which all Kentuckians would like to point with pride as the pattern par excellence of all things desirable in a modern municipality.

OUR BUSINESS

Mrs. Wm. H. Emrich, Business Manager

The Advertisers' Contest, sponsored by the Quarterly, closed at the Annual Meeting of the Woman's Auxiliary to the Kentucky State Medical Association. Awards to the successful contestants were presented at Mrs. McCormack's luncheon for the Quarterly, given at LaFayette Hotel in Lexington, September 16. The first prize, a Portable Philco Radio was awarded Miss Grace Stroud; the basket of good things donated by Wheatley Mayonnaise Company, was won by Mrs. Stephen C. McCoy.

The contest idea was new to us; our advertisers approved it so we thought it worth trying. It afforded an opportunity to all Auxiliary members to show their loyalty to Quarterly Advertisers and we believe we can produce results which will encourage our Advertisers to join us again in 1941. Your interest manifested in the Contest, Style Shows and Exhibits will give Mrs. Wier very salient talking points for her Ad-getting drive this fall. Indeed we are very optimistic about getting new Ads and renewals.

The Annual Audited Report of the Business Manager is presented on page 127 of this issue. Here you have an accurate detailed record of all business transactions of the Quarterly. One cannot read this without feeling grateful to our Advertisers, to County Auxiliaries and friends for their help in financing our publication and to our Editor, for her ability to incorporate the useful and helpful material we need for information and reference in Auxiliary work. The more work we do, the more we appreciate the Quarterly. No doubt, you will be glad to know there are some folk outside the pale who appreciate this work also. The Medical School of Northwestern University in Chicago has very recently requested copies for the School Library and the Congressional Library is asking for copies also.

CANCER CONTROL

CANCER COMMENTS

Mrs. Bernard Asman, State Chairman, Louisville

The Jefferson County Auxiliary of the Medical Society received a Merit Certificate from the Kentucky Division of the Women's Field Army for attaining 100 per cent membership in the April Campaign. The committee appointed by Mrs. Bernard Asman, chairman, from the membership of the Auxiliary served in the registration booths, solicited funds, and placed Cancer Control Coin Boxes, throughout Louisville. In February the Auxiliary served as hosts at a tea, in the Crescent Hill Women's Club, for delegates from 38 States to the National Assembly of the Women's Field Army.

Letters were sent to chairmen of the Medical Society Auxiliaries of Kentucky requesting the cooperation of all members in the work of the Women's Field Army. A gratifying response to this appeal was shown in the team work of the Medical Auxiliaries with local Vice Commanders in many parts of the State.

The increased interest and cooperation of members has played an important part in securing contributions totaling \$3,250.00 for the Memorial Fund in addition to the \$7,100.00 for the Educational Fund. Thirty per cent of this educational fund goes to the national headquarters of the American Society for the Control of Cancer for the national educational program and for services to the Women's Field Army divisions, leaving a balance of approximately \$5,000.00 for the extension of the Kentucky Division educational program, 1940-1941.

The establishment of one bed, for one year, for indigent, early cancer cases, in each of the following hospitals: The Norton, St. Joseph's, and Red Cross, (colored) in Louisville, and in the Good Samaritan, Lexington. Cooperation with these hospitals has been made possible by contributions to the Memorial Fund. Any resident in Kentucky is eligible for the hospitalization service provided by this fund, subject to approval by the hospital authorities. This is a splendid advance of the work of the Women's Field Army. However, this is only a small beginning. As each hospital can take care of approximately 30 patients, only, under this plan, it is anticipated many worthy cases cannot be accepted. Applications will be considered in the order they are received. The opening of the Cancer Clinic at the Good Samaritan Hospital will be followed, it is hoped, by Cancer Clinics being established in other sections of the State, in the near future.

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Franklin County Auxiliary Proves It Is Health Minded

BETTER HEALTH CONDITIONS WANTED BY LOCAL WOMEN

Slop Trucks, Garbage Disposal Considered, Registration, Incinerator Means Suggested Means Suggested

(Ed. Note: The State Journal Frankfort, carried the following story of intelligent, purposeful Auxiliary activities and leadership, in community welfare, on the front page, top and center, double column, of the Friday morning, August, 1940, issue. Another story states that representatives were present from all civic, cultural, patriotic and religious organizations in the city. Good work! Congratulations, Franklin County!)

With right hands held aloft, all members of the Franklin County Woman's Medical Auxiliary, together with others, who attended the Auxiliary's health forum yesterday at the First Christain Church, pledged themselves to appear before the city council in force to support health officers' recommendations looking toward better health conditions for Frankfort.

The pledge of support to officials in attempts to obtain needed city legislation came after a declaration from Mrs. Christine Bradley South that "all public officials, as well as senators and congressmen, fear their constituents and if the women who are the wives and mothers of the community apply enough pressure of public opinion, our health officers would not meet with turndowns on their proposals to better health conditions."

Mrs. South urged that the women "come out in force and pack the council chamber when Dr. Thomas Leonard, city health officer, goes before the council with recommendations."

The speaker advocated such procedure after a suggestion from the floor that the city health department set up some sort of registration system for trucks hauling distillery slop, so that in cases where such trucks violated city ordinances against spilling slop on the streets, violators could be identified by license numbers on their trucks.

First speaker at the afternoon forum, at which local civic organizations, the ministry and the county medical association were represented, was Dr. Leonard.

He was introduced by Mrs. F. M. Travis, to whom the meeting had been turned over by Mrs. Joseph Barr, the Auxiliary President.

Dr. Leonard, explaining that the meeting had been called to recommend such community health projects as the Women's Auxiliary might sponser and support, defined public health as "prevention of disease, prolongation of life and preservation of physical fitness." He added that "preventive medicine is really good neighborliness," and something that depends upon the individual's cooperation as well as laws and medical skill.

The doctor cited good milk and water supply

as the essentials of public health. As a project for the Auxiliary he suggested an effort to have the city obtain an incinerator for garbage disposal or employment by the city of a full-time milk inspector.

"But the milk supply and inspection would be the best thing to work for," he said. Declaring that "clean milk is not always the healthiest milk," Dr. Leonard lauded local dairymen for "what they are doing" but added that "even so, the bacterial count of our milk is still too high."

It was at this point that he urged employment of a full-time milk inspector.

Dr. Leonard also discussed the garbage disposal problem occasioned, he said, by the city's purchasing a dumping ground in the county. He anticipated county protest and action against the project but remarked that "something will have to be done, finally, to work out the problem."

Dr. R. M. Coblin, county health officer, stated that the local milk supply was "as good as that of any town in the State—but it is not every thing it ought to be."

He pointed out that the quality of any community milk supply depends on the men running the dairies. Some, he said, are careless, others very careful about their work. Dr. Coblin also stated that the city was to encounter legal opposition in its plan to start dumping garbage and refuse on its newly-acquired county property.

The doctor agreed with Dr. Leonard that "something must be done" in solution of the garbage disposal problem.

Next speaker, Dr. M. C. Darnell, city physician, told of the beneficial effects of preventive medicine. As an example of the need for it he cited the case of a mother on Wilkinson street who had called him to attend a sick baby.

Intimating that conditions there were not of the best, Dr. Darnell declared that "there were flies all around the baby" and said "it is too bad owners of such property can't be made to screen their houses."

"If we could just get enough people to go before the council," he continued, "to show them that the public wants needed health improvements, we could get something done."



THE DOCTOR'S WIFE

Percy T. Magan, M. D., Los Angeles, Cal.

(Ed. Note: Mrs. F. L. Garrett, President Calloway County Auxiliary, wishes to share with us the following tribute written by a friend.)

At divers times and in sundry places it hath been said by them of old time, "The hand that rocks the cradle is the hand that rules the world." In this hard hour, it is fitting to set down a somewhat similar adage which I have ventured to propose, namely: The hand that holds the doctor's heart is the hand that molds the healing art.

A good wife will ne'er forget nor cast out of mind the words of an ancient Book, "And God brought the woman to the man." In every meetings ordained by the Eternal Father this is just as true as it was in the case of our first parents in Eden's garden. Every noble-hearted woman will take this great responsibility with the utmost seriousness.

Doctors are not always the easiest mortals with whom to dwell. Their work is taxing, their hours irregular, and their burdens heavy. Their sleep is often broken and not infrequently they must eat at irregular hours. Such a way of living tends to irritable tempers. Consequently, the wife must practice the maxim of Pope: "Men must be taught as though one taught them not and things unknown he told as things forgot."

The poet Longfellow spoke a mighty truth when he wrote:

"As unto the bow the cord is,
So unto the man is woman,
Though she bends him, she obeys him,
Though she draws him, yet she follows,
Useless each without the other!"

To the Countess of Birkenhead a very distinguished writer addressed the following words which I believe to be beautifully applicable to any wife who adores her calling and who reverences her sacred trust:

"The wife of a great man resembleth the custodian of a work of art, in that the pleasures which she derives from his company are conjoined with the responsibilities of curatorship. 'Tis hers to ensure that he enjoy health, happiness, comfort, leisure and repose, without which provisions he cannot compass his public duties. She must be ready to accord him praise for his achievements, both large and small; sympathy in his misfortunes, even those infinitesimal; and a patient audience at all times. What a task is this, besides which his triumphs are as shadows! Not to assert—for this way exaggeration lies—that the stature of great men dependeth wholly from their wives, I yet hold it for certain that, without them, many great men would be much diminished figures."

PROCEEDINGS OF THE
EIGHTEENTH ANNUAL MEETING OF
THE WOMAN'S AUXILIARY
to the

KENTUCKY STATE MEDICAL ASSOCIATION

Held At

Lexington, Kentucky, September 16-19, 1940

The Eighteenth Annual Meeting of the Woman's Auxiliary to the Kentucky State Medical Association opened at 9:00 A. M., Monday, September 16, 1940 at the LaFayette Hotel, Lexington, Kentucky, with registration.

Quarterly Luncheon

The Second Quarterly Luncheon of the Woman's Auxiliary to the Kentucky State Medical Association was held in the Red Room, LaFayette Hotel, Lexington, at 12:00 M., with Mrs. A. T. McCormack, Editor of the Quarterly, presiding. Thirty-eight were present. Due to illness the Business Manager, Mrs. William H. Emrich, Louisville, was unable to attend.

Greetings and messages of encouragement and cooperation were given by two members of the Advisory Council, Dr. A. T. McCormack, Louisville, and Dr. V. A. Stilley, Benton.

The Editor had a display of the Quarterly "in the making," showing the method of composition and giving us an idea of the enormous amount of work required in keeping a record of the activities of the organization.

The Advertising Manager, Mrs. Joseph E. Wier, Louisville, told of the plan for financing and asked the cooperation of every one present in the raising of funds to carry on the publication.

Mrs. Wier then announced the winner of the Radio Contest, which was sponsored by the Quarterly, to be Miss Grace Stroud, Louisville, who received a beautiful portable Philco Radio. The second prize, an attractive basket of Lady Betty products, was won by Mrs. S. C. McCoy, Louisville. Three door prizes, a pair of hose donated by Baynham's, a one dollar bill from a friend, and a large box of crackers from the

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Hampton Cracker Co., were won by Mrs. C. D. Cawood, Lexington, Mrs. Joseph Barr, Frankfort and Mrs. Frank K. Sewell, Jackson.

Shoes from Baynham's and hats from Clara's, in Louisville, were modeled by Mrs. Samuel H. Flowers, Middlesboro.

Study Class

At 2:00 P. M., Monday, the Study Class was held in the Red Room, LaFayette Hotel with Mrs. S. C. McCoy, Louisville, presiding; 23 were present.

This year, the Study Class was given over to the reading and discussion of the new Handbook, Duties of Officers and Committee Chairmen. Many helpful suggestions and additions were offered. A copy was furnished each person to take back to her County Unit for use during the coming year. A revised edition will be presented at the next Annual Meeting.

The chairman of the Editing Committee, Miss Grace Stroud, read the book and it was discussed by the other two members of the committee, Mrs. A. T. McCormack and Mrs. S. C. McCoy.

Minutes of the

Pre-Convention Board Meeting

The Annual Pre-Convention Board Meeting of the Woman's Auxiliary to the Kentucky State Medical Association was held in the Red Room, LaFayette Hotel, Lexington, at 3:45 P. M., Monday, September 16, 1940, with Mrs. Reason T. Layman, Elizabethtown, the President, presiding. A quorum was present. (17 seated)

The Invocation was offered by Mrs. V. A. Stilley, Benton.

A motion carried that the reading of the minutes of the Mid-Year Board Meeting, held in Louisville, January 18, 1940, be dispensed with as they had been published in the Quarterly.

Roll call was answered by 16 members.

The Nominating Committee was elected as follows: Mrs. Joseph Barr, Frankfort, Franklin County, Chairman; Mrs. S. C. McCoy, Louisville, Jefferson County; Mrs. Frank K. Sewell, Jackson, Breathitt County; Mrs. James Outland, Murray, Calloway County and Mrs. Norval E. Green, Calvert City, Marshall County.

The Resolutions Committee was appointed by the President, with Mrs. Bernard Asman, Jefferson County, chairman; Mrs. John Dawson, Kenton County and Mrs. G. W. Woodard, Hardin County.

The following Special Committee report was made.

The Handbook Committee presented the book-

let it has been working on the past year with the suggestions offered at the Study Class for the approval of the Board. A motion by Mrs. Samuel H. Flowers that the committee revise the Handbook as suggested was seconded by Mrs. Evan Garrett, Murray, and passed. Mrs. V. A. Stilley moved that the handbook with revisions be accepted for use during the coming year and that the same committee present it again at the next Annual Meeting for additional revisions after a year's trial. The motion was seconded by Mrs. Bernard Asman, carried.

Adjourned, 5:00 P. M.

Grace Stroud,
Recording Secretary.

President's Report To Kentucky State Medical Association

The President, Mrs. Reason T. Layman, appeared before the House of Delegates in Annual Session at Lexington, September 16, at 8 P. M., and presented her report of the work of the Auxiliary for the past year. (See Minutes of the 1940 House of Delegates, K. M. J., November 1940).

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Joint Session

At 9 A. M., Tuesday, September 17, the Auxiliary met jointly with the Kentucky State Medical Association, at the Phoenix Hotel, for the Installation Ceremony of the President, Dr. Austin Bell, Hopkinsville.

MINUTES OF THE ANNUAL MEETING**First Session**

The General Business Meeting of the Eighteenth Annual Meeting of the Woman's Auxiliary to the Kentucky State Medical Association was called to order in the Red Room, LaFayette Hotel, Lexington, at 9:45 A. M., Tuesday, September 17, by the President, Mrs. Reason T. Layman. A quorum was present. (48 members were seated at the opening of the session.)

The Invocation was offered by the Rev. O. R. Crockett, Pastor of the Methodist Church, Lexington.

Group singing was led by Mrs. Russell E. Kinsey, Williamstown, with Mrs. B. E. Stanley, Williamstown, at the piano.

Mrs. Thomas Marks, Lexington, made an Address of Welcome to which Mrs. Samuel Flowers, Middlesboro, responded.

Roll call showed 7 Officers, 7 Committee Chairmen, 6 County Presidents and 16 Delegates present.

A motion carried that the reading of the Minutes of the Seventeenth Annual Meeting held in Bowling Green, September 12, 1939, be dispensed with as these Minutes had been published in the Quarterly.

The Report of the Committee on Arrangements was made by Mrs. Thomas M. Marks, Lexington.

The Report of the Committee on Credentials and Registration was given by Mrs. Joseph Barr, Frankfort, who announced that 39 members had registered.

Messages and Greeting from the Kentucky State Medical Association were brought by the Retiring President, Dr. John W. Scott, Lexington and the newly installed President, Dr. Austin Bell, Hopkinsville.

Cello solos were given by Mr. Byron Bach, Bellevue, son of Mrs. Luther Bach, beloved past President of the Auxiliary. Mrs. Patricia Davis, Lexington, accompanied Mr. Bach on the piano.

An IN MEMORIAM Service, in honor of Mrs. Clell Coleman, Harrodsburg, was given by Mrs. John B. Floyd, Richmond, assisted by Mrs. John H. Rutledge and Mrs. Patricia Davis, both of Lexington

Recess.



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Luncheon

A Luncheon, honoring Past Presidents of the Woman's Auxiliary to the Kentucky State Medical Association, was given at 12:30 P. M., Tuesday, in the Red Room, LaFayette Hotel, Lexington, with the President, Mrs. R. T. Layman, presiding.

The Invocation was offered by Mrs. J. B. Shacklette, Jeffersontown.

There were four Past Presidents in attendance; Mrs. V. A. Stilley, Benton; Mrs. P. E. Blackerby, Louisville; Mrs. A. T. McCormack, Louisville, and Mrs. S. C. McCoy, Louisville.

Each made a gracious little talk and congratulated the Auxiliary on its growth. Mrs. John E. Dawson, Fort Thomas, President of the Campbell-Kenton Auxiliary, then presented each with a corsage as a token of esteem from her Unit.

A highly dramatic review of "Time of Your Life," by William Soroyan given by Mrs. George Smith, Lexington, concluded the Luncheon program.

Drive and Tea

At 2:30 P. M., a most enjoyable drive through the beautiful blue grass section adjacent to Lexington to the home of "Man o' War," the most famous horse in the world, was followed by a delightful Tea at the Lexington Country Club. The Tea, in honor of the members of the Woman's Auxiliary to the Kentucky State Medical Association, was given by the wives of the physicians of Lexington.

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MINUTES OF THE ANNUAL MEETING

Second Session

The Second Session of the General Business Meeting of the Eighteenth Annual Meeting of the Woman's Auxiliary to the Kentucky State Medical Association was held at 8:30 A. M., Wednesday, September 18, in the Red Room of the LaFayette Hotel, Lexington with the President, Mrs. R. T. Layman, presiding. A quorum was present. (17 members seated at the opening of the session.)

The Minutes of the previous session were read and approved.

Reports of State Officers, Committee Chairmen and County Presidents were read, accepted and filed, as follows:

President-Elect—Mrs. John M. Blades, Butler.

A motion to accept the reports as a whole was made by Mrs. Bernard Asman, seconded by Mrs. John G. South, Frankfort, carried.

First Vice-President—Mrs. John E. Dawson, Fort Thomas.

Treasurer—Read by Secretary.

Finance—Read by Secretary. A motion that the President's Report, together with the report of the Finance Chairman, be adopted, was made by Mrs. John G. South and seconded by Mrs. James W. Sams, Louisville; carried.

Cancer Control—Mrs. Bernard Asman

Hygeia—Mrs. James W. Sams

Program—Read by Secretary. The President presented the Blue Ribbon for the most points earned in the Achievement Project to the President of Franklin County, Mrs. Joseph Barr.

Public Relations—Mrs. Joseph E. Wier, Louisville.

Tuberculosis—Mrs. L. E. Smith, Louisville.

Breathitt County—Mrs. Frank K. Sewell, Jackson.

Calloway County — Mrs. Evan Garrett, Murray.

Campbell-Kenton—Mrs. John E. Dawson, Fort Thomas.

Frankfort County—Mrs. Joseph Barr, Frankfort.

Hardin County—Mrs. R. T. Layman, Elizabethtown, delegate.

Jefferson County—Mrs. Richard T. Hudson, Louisville.

Marshall County—Mrs. Norval E. Green, Calvert City, delegate.

Sampson Community Hospital Auxiliary—Mrs. C. C. Turner, Glasgow.

A motion that the reports be accepted and filed was made by Mrs. Joseph Barr, seconded by Mrs. S. C. McCoy, Louisville, and carried.

The Report of the Delegate to the Annual Meeting of the Woman's Auxiliary to the American Medical Association held in New York City, was read by Mrs. R. T. Layman. Accepted and filed.

The Report of the Councilor to the Woman's Auxiliary to the Southern Medical Association, held in Memphis, Tennessee, was presented by Mrs. John M. Blades. Accepted and filed.

The Public Relations Chairman, Mrs. Joseph E. Wier, told of the developments in the Cold Abatement Campaign of the Auxiliary during this past year and then moved that the entire organization sponsor a Cold Abatement Campaign during the coming year through its County Units. The motion was seconded by Mrs. Joseph Barr and carried. A motion by Mrs. A. T. McCormack seconded by Mrs. John G. South, that Mrs. Wier be appointed Chairman of the Cold Abatement Campaign during the year; carried.

Mr. C. P. Lorz, Business Manager of the Southern Medical Association, was presented and told of plans for the Annual Meeting of the Southern Medical Association to be held in Louisville in November.

The President announced that illness had kept Mrs. H. V. Usher and Miss Pauline Haley from attending the meeting and requested the Secretary write them to express the wish of the organization for their speedy recovery. The President told of the illness of Dr. Luther Bach and asked that a letter of best wishes be sent our Treasurer.

Because of unusual circumstances and upon the request of the Chairman, the President ruled that the Report of the Resolutions Com-

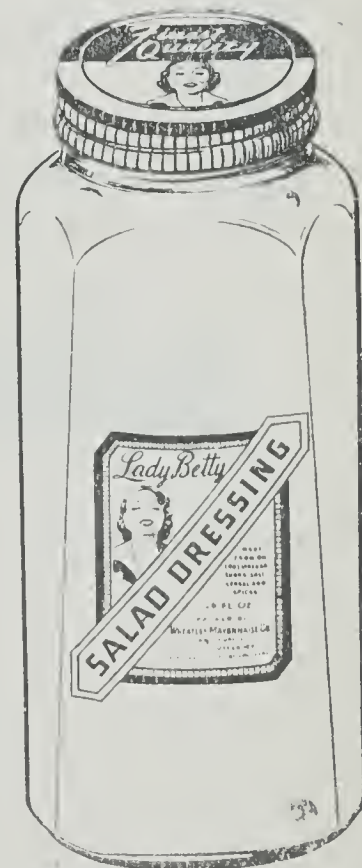
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mittee need not be read but would be published in the next Quarterly.

The Final Report of the Chairman of Registration and Credentials was given by Mrs. Joseph Barr and showed the attendance of 8 Officers, 9 Committee Chairmen, 20 Delegates with 49 other members and 45 visitors making a total of 131 representing 31 Counties.

The Report of the Nominating Committee was presented by the Chairman, Mrs. Joseph Barr. Mrs. V. A. Stilley, Benton, moved the election of the candidates. The motion was seconded by Mrs. James W. Sams; carried. Nominations from the floor were called for but none were offered. Motion carried that the nominations be closed and the Secretary be instructed to cast the ballot, whereupon the following were declared elected:

President-Elect—Mrs. John G. South, Frankfort

1st Vice-President—Mrs. John B. Floyd, Richmond

2nd Vice-President—Mrs. Russell Kinsey, Williamstown

3rd Vice-President—Mrs. Evan T. Garrett, Murray

4th Vice-President—Mrs. Frank K. Sewell, Jackson.

Recording Secretary—Miss Grace Stroud, Louisville

Treasurer—Mrs. Luther Bach, Bellevue

The newly elected officers were called to the platform and introduced by the President, forming a guard of honor as Mrs. John M. Blades, the Incoming President, was installed by Mrs. V. A. Stilley. Mrs. Blades then gave her Acceptance Address.

Minutes of the Second Session were read, accepted and filed.

Adjourned sine die at 11 A. M.

Grace Stroud

Recording Secretary.

Annual Luncheon

The Annual Luncheon, given by the Kentucky State Medical Association to the Auxiliary, was held at 1:00 P. M., Wednesday, at Beaumont Inn, Harrodsburg, with Mrs. R. T. Layman, Toastmistress.

The wives of the Physicians of Lexington furnished their cars for the beautiful drive to Harrodsburg.

The Invocation was offered by Mrs. Charles F. Long, Elizabethtown.

A hearty welcome to Harrodsburg was extended by Mrs. R. T. Ballard, newly elected president, Mercer County Auxiliary.

Mrs. J. B. Lukins, Chairman of the Doctors Shop, spoke of the effort being made to furnish the Doctors Shop at Harrodsburg and invited the women to visit the Shop and see the start that has been made.

Mrs. A. T. McCormack discussed the work of beautifying the Jane Todd Crawford Trail and Mrs. R. L. Durham, Greensburg, told of the vast amount of planting in Green County and their hope of building a replica of the Jane Todd Crawford Home. Mrs. McCormack announced that immediately after the luncheon and a visit to the Doctor's Shop the Auxiliary would make a pilgrimage to the Ephraim McDowell-Jane Todd Crawford Memorial at Danville.

A colored motion picture of the Jane Todd Crawford Trail was shown by Dr. W. B. Atkinson, Campbellsville.

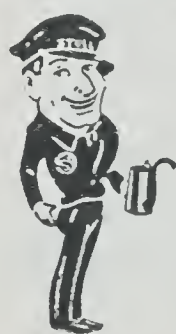
An address on the importance of Public Relations programs in County Units by the Public Relations Chairman, Mrs. Joseph E. Wier, concluded the program.

Post-Convention Board Meeting

The Post-Convention Board Meeting of the Woman's Auxiliary to the Kentucky State Medical Association was held in the Red Room, LaFayette Hotel, Lexington, at 9:00 A. M., Thursday, September 19, with the President, Mrs. John M. Blades, presiding. A quorum was present. (12 seated.)

Roll call was answered by 9 members.

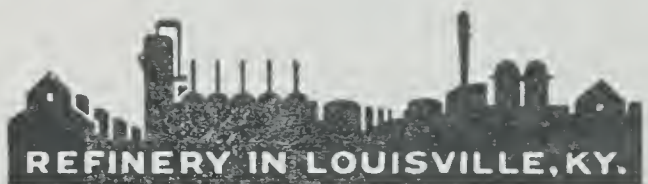
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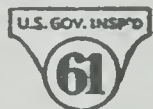
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ing were read, corrected and accepted.

The President announced the appointment of Mrs. S. C. McCoy, Louisville, as Parliamentarian and the appointment of Mrs. Donald P. Dehart, Butler, as her Corresponding Secretary.

The new committee appointments were read by the President.

The program of work for the coming year was presented by the President as a continuation of the Achievement Project for County Auxiliary Development. Mrs. A. T. McCormack moved that one point for each \$1.00 paid the State Treasurer for the Jane Todd Crawford Fund be allowed in the Achievement Project. The motion was seconded by Mrs. John E. Dawson and carried. Mrs. Joseph E. Wier suggested that points in the Achievement Project be allowed for participation in the Cold Abatement Campaign.

Mrs. A. T. McCormack asked that the Press and Publicity Chairman be instructed to publicize the Quarterly as well as the A. M. A. Bulletin. Mrs. McCormack also asked that special emphasis be placed on Jane Todd Crawford Day this year.

November 12 was selected as the date of the Mid-Year Board Meeting. A luncheon will be given at 1:00 P. M., at the Brown Hotel, Louisville.

A motion that the State Auxiliary sponsor a style show for the support of the Quarterly and that it be held in Louisville in the Spring was made by Mrs. Bernard Asman, seconded by Mrs. R. T. Layman; carried.

Minutes of the Post-Convention Board Meeting were read, corrected and accepted.

Adjourned at 10:15 A. M.

Grace Stroud,
Recording Secretary.

SUMMARY OF REGISTRATION

Officers	8
Committee Chairmen	9
Delegates and Alternates	20
Other Members	49
Visitors	45
Total Number Registered	131
Number of Counties Represented	31

REPORT OF THE RESOLUTIONS COMMITTEE

WHEREAS, the 18th annual meeting of the Woman's Auxiliary to the Kentucky State Medical Association completed a very successful and interesting meeting, and

WHEREAS, Mrs. Thomas M. Marks, and her committee of Fayette County have so successfully worked and planned together with the Kentucky State Medical Association for our comfort and entertainment, and

WHEREAS, the Phoenix and Lafayette Hotels of Lexington have attended to our needs and

wants with courtesy and dispatch

WHEREAS, the Press, especially the Lexington Herald and the Louisville Courier-Journal and Louisville Times have been generous in giving space to pictures and publishing accounts of our activities, and

WHEREAS, Rev. O. B. Crockett, Pastor of the Methodist Church, Lexington, Mrs. Russell Kinsey and her Committee for Musical program, Mr. G. L. Tucker of Williamstown for printing of musical programs,

WHEREAS, the Kentucky State Medical Association provided for a delightful luncheon at Beaumont Inn at Harrodsburg and Dr. J. D. Reichart, a dinner at the Narcotic Farm for the Auxiliary, Now Therefore,

BE IT RESOLVED, That we the Woman's Auxiliary do hereby gratefully express our deepest and most sincere appreciation for all the above courtesies.

WHEREAS, our beloved President, Mrs. Reason T. Layman, has during her term of office suffered the very great sorrow of losing her husband; we hereby express our appreciation for her courage in carrying on the duties of her office.

WHEREAS, The Officers and Chairman of Committees have cooperated in a helpful and satisfactory manner, Now Therefore,

BE IT RESOLVED that we now express our appreciation to Mrs. Layman and the officers and chairmen for their valuable services during the past year

WHEREAS, Dr. W. B. Atkinson of Campbells-ville, generously made and showed his own motion picture of places on the Jane Todd Crawford Trail, Mrs. R. L. Durham and Committee of Greensburg, with the Girls Scouts planted bulbs, etc. on the Trail, Now, Therefore,

BE IT RESOLVED that we now express to each of them our appreciation.

WHEREAS, the House of Delegates, expressing the confidence of the Kentucky State Medical Association to its subsidiary organization—The Woman's Auxiliary—has again appropriated the sum of \$500.00 to be used, should occasion arise, as a Contingent Fund for the support of the Woman's Auxiliary Supplement to the Kentucky Medical Journal, known as the Quarterly, Now, Therefore,

BE IT RESOLVED, That we express to them our gratitude and indebtedness for this generous consideration and encouragement.

Respectfully submitted,

Mrs. Bernard Asman, Chairman
Mrs. John Dawson,
Mrs. G. W. Woodard.

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INAUGURAL ADDRESS
Mrs. John M. Blades, Butler

It is indeed with a feeling of tremendous responsibility as well as gratitude that I accept this office following a president who has very beautifully exemplified courage, stability and loyalty to the ideals of the Auxiliary to the Kentucky State Medical Association. I am grateful to my predecessors for the force of a strong organization. The wheels seem to turn automatically as each one in the system methodically does her work. Almost, I would say with Morris—"What vision wilt thou give me," retiring officers of the Auxiliary, that I may make this organization more complete?

We feel that we do need both faith and vision as we start the new year's work. We want to join with the Auxiliary to the American Medical Association in using the slogan "Look Forward." We must advance if we expect to be of benefit to the medical profession. Our vision will be enlarged as we take the time to increase our knowledge and broaden our activities for the relief of suffering and for the prevention of disease. May we as individual members of this organization be a steadying influence to keep the purpose of Kentucky doctors unchanged in their love for humanity and may we be a central force to keep the minds of the public clear in that respect. May we interpret the platform of the American Medical Association as it is intended "for the expansion of public health and medical services consistent with the American system of democracy." As for our specific goal for the year we shall continue to use the Achievement Project—County Auxiliary Development outline. It can be of invaluable service if we once get into the habit of using it.

At this time I should like to thank all who have helped to make our program a success. We are grateful for your splendid cooperation. We thank the ladies of Lexington for the gracious entertainment which has exemplified true Southern hospitality. Now, I thank you kindly for the honor you have granted me and I solicit your prayers that I may carefully and effectively turn the pilot's wheel as the year goes by and may we be safely anchored when we

meet again in 1941. Now, may we say with Tennyson,

"Not in vain the distance beacons. Forward, forward let us range.
Let the great world spin for ever down the ringing grooves of change."

Let us keep ahead of the changes that have to come. Let us make those changes consistently and in accord with our noblest ideals.

REPORT OF THE COUNTY ACHIEVEMENT
PROJECT FOR 1939-1940

Breathitt	No Report
Bell	No Report
Campbell-Kenton	57½ points
Calloway	100 points
Franklin	145 points
Graves	127½ points
Hardin	105 points
Jefferson	137½ points
Licking Valley	110 points
Lawrence	No Report
Madison	40 points
Marshall	47½ points
Mercer	35 points
Sampson Community Hospital.....	137½ points

Respectfully submitted,
(Mrs. H. V.) Treva Jones Usher, Chairman

REPORT OF KENTUCKY COUNCILOR TO
THE SOUTHERN MEDICAL AUXILIARY

The sixteenth annual meeting of the Auxiliary to the Southern Medical Association convened in Memphis, Tennessee, November 22, 1939. Mrs. W. K. West, Oklahoma City, president of the Auxiliary, presided at a very enjoyable executive breakfast at the Peabody Hotel at eight o'clock. At the request of the Auxiliary to the American Medical Association, the Southern breakfast, which had been an annual event of the convention of the Auxiliary to the American Medical Association, was discontinued. The board decided to ask Mr. Loran for fifty dollars (\$50.00), a part of which was to be used by the Jane Todd Crawford chairman. This was afterwards granted.

The advisory council spoke at the opening of the session on Wednesday morning. Dr.

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Arthur T. McCormack, president of the Southern Medical Association spoke briefly. Mrs. V. E. Holcombe, president-elect of the American Auxiliary brought greetings. Mrs. A. A. Herold gave a splendid review of the legislative program of the American Auxiliary. Luncheon was served in the Skyway of the Peabody Hotel to six hundred women. Autumn leaves and yellow chrysanthemums decorated the tables. A parade of states during which seventeen ladies gave short talks on outstanding contributions made by their state, furnished the entertainment. Mrs. Samuel Flowers, Middlesboro, very eloquently represented Kentucky.

The second session was devoted to reports and to the election of officers. Mrs. Leslie Moore conducted the installation service at which time Mrs. West presented the gavel to Mrs. Charles P. Corn, Greenville, North Carolina. Mrs. Corn gave a very inspiring address. A post convention board meeting followed, at which time we were asked to remember the three main objectives of the Southern Auxiliary:

(1) Research and Romance of Medicine, (2) Jane Todd Crawford Memorial, (3) Doctors Day Observance. Another luncheon was served at the Woman's Club and the entertainment there was a fashion show. A drive over the city followed and dinner at the Gayoso Hotel at which time a musical program was presented.

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Southern hospitality was at its best in Memphis during this sixteenth session of the Auxiliary to the Southern Medical Association.

Respectfully submitted,
(Mrs. John M.) Anna M. Blades



HYGEIA
Goddess of Health

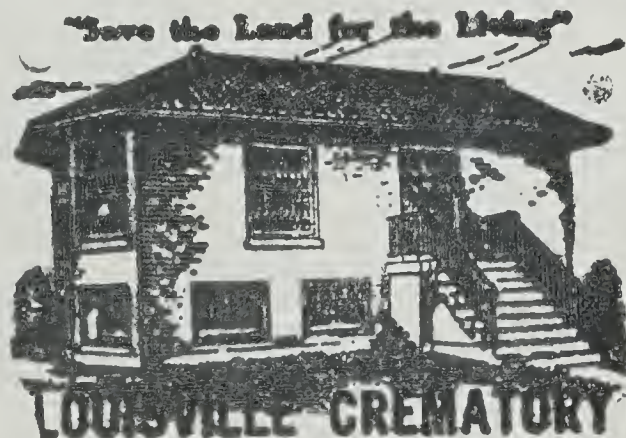
Dear Auxiliary Members:

After a pleasant summer vacation, I hope every one of you have acquired new energy and enthusiasm to carry through with your projects and pleasures for the coming year.

While on a recent trip to Chicago, I had another visit with Mr. Fred Cargill, the Circulating Manager of Hygeia, at which time he repeated his offer to supply every Auxiliary Member who will ask for material to promote the distribution of HYGEIA. Also he reminds us that the contest begins September 1st and closes January 31, 1941.

Then, too, I had the pleasure of enjoying lunch with our National Hygeia Chairman, Mrs. Wanniger. I learned from her of their activities in the Auxiliary to the Chicago Medical Societies of which there are many. We could do some of these same activities such as having card parties and teas to earn money to pay for Hygeia subscriptions and thus enable us to place Hygeia in public institutions, recreational centers and small schools, thereby helping the public to become Health minded.

Sincerely yours,
(Mrs. J. Woodville) Ida B. Sams.
State Chairman.



ADULTS \$50.00

LEARN THE FACTS—FREE PAMPHLETS
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JANE TODD CRAWFORD MEMORIAL

ANNUAL REPORT OF JANE TODD CRAWFORD MEMORIAL COMMITTEE

Mrs. J. W. Sams assisted the Chairman, August 28, 1939, in mailing out letters describing the work of the Jane Todd Crawford Trail to a number of Seed and Bulb Houses and to several Nurseries. A generous response was deeply appreciated. A complete listing has not been made but some outstanding gifts were:

10 Choice Rose bushes (Donald Prior) and 5 selected climbing Rose bushes (June Morn) from Jackson & Perkins Company, N. Y., Builders of Rose Gardens at World's Fair.

200 Tulip bulbs from Holland—Peter Henderson & Co., N. Y. (Probably part of the last shipment from Holland.)

PROUD THAT THEY LIVE ON THE TRAIL

Counties through which the Trail passes, given at the Pendennis Club, October 18th, 1939, many plans were made for fall planting. The Campbellsville women are planting the grounds of a new school built on the Trail.

The Woman's Club in Greensburg plans a monument to our Pioneer Heroine across from the entrance to the home now on the old Crawford place. On November 17, a big community meeting was planned in Greensburg and I had arranged at the request of the Green County people, to bring an expert gardener from Louisville, to help them make plans for considerable work. But, I was too ill to make the trip. Fortunately, however, Mrs. S. H. Flowers was able to go in my place with Mr. Chas. Villier and Mr. Len Short.* They were met with a warm welcome and accomplished a great deal



Green County Citizens assembled at Thompson's Filling Station, across road from Jane Todd Crawford Farm, November 17, 1939, for consultation with Mrs. S. H. Flowers, Middlesboro, Mr. Lem Short, Louisville, both at extreme right, and Mr. Charles Villier, Louisville about beautification of the Jane Todd Crawford Trail. Mrs. R. L. Durham, Greensburg, center, Mr. Duff Thompson, resident-owner of Jane Todd Crawford farm, second from right.

40 packages Marigold — odorless foliage — W. Atlee Burpee, Philadelphia.

Box of Guernsey Lily bulbs,—Geo. W. Park Seed Co., Greenwood, S. C.

200 Dahlia Bulbs, Eastvale Dahlia Farms—Middlesboro, Mass.

Sampson Community, Franklin, Calloway Counties and many individual Auxiliary Members have contributed Seeds and Bulbs and Plants. Franklin gave a large donation of Spirea Von Houtti.

A huge box was received from the Springfield, Ohio, Garden Club, filled with seeds from the gardens of members. A most generous collection of fine seeds!

At a luncheon for the leaders in the four

of good with consultation, advice and plans for the future.

The WPA made 150 reproductions of the Jane Todd Crawford Cabin and in Memphis at the Southern Medical Auxiliary Meeting, one cabin together with a copy of Mrs. Flowers Radio dramatization was given to a representative of each State for Jane Todd Crawford work. A cabin was also sent to each County Chairman in Kentucky. These wee cabins will be of great aid in developing Jane Todd Crawford interest.

Wherever there is a model of the McDowell Home in possession of one of the doctors and he will loan it to you, you can make a miniature Trail, Muldraugh's Hill and all the creeks and Green River which will create a lot of interest

*Deceased. But his son, George, is interested in the work.

if placed in a store window or some public place, as Mrs. Sams did for our luncheon, October 18th, at the Pendennis Club.

Models of the Cabin have also been given to the libraries in Green, Taylor, Marion Counties, and one placed in the Ephraim McDowell-Jane Todd Crawford Memorial in Danville.

We want to distribute a model to each County for the particular use of the school children. But—we have not yet found a way in which to do this. Can you suggest how we can do this? (Helpful suggestions at the Annual Meeting may solve this problem.)

At the Mid-Year Board Meeting in January, Mrs. Eleanor Hume Offutt, Frankfort, was appointed Chairman for Furnishing the Jane Todd Crawford Room at the Dr. Ephraim McDowell-Jane Todd Crawford Memorial in Danville. You all know that Mrs. Offutt is The Authority on Kentucky antiques which assures us that this work will be done correctly.

With dignified and appropriate ceremonies at her grave, a monument honoring the Pioneer Heroine of Surgery, Mrs. Jane Todd Crawford, was unveiled on National Hospital Day, May 12, 1940, in the Johnson Cemetery, Graysville, Indiana, by the Indiana Hospital Association. This beautiful granite monument replaces the modest tombstone of marble which has greatly deteriorated from the action of the weather. Fortunately, arrangements have been made, however, to keep the original marker, properly

protected, at the foot of the new monument.

Fall planting time is here! Trees, bulbs, shrubs and some seeds are seasonable. We want tons—yes, literally tons—of iris. Sixty miles is a long stretch to plant and we need it on both sides of the Trail which makes 120 miles to plant. Quite a garden! Can you send iris to the Trail, direct, or to us so that we can have it taken to the Trail and have it planted? Or, have you something else to offer? Please send it directly to Mrs. R. L. Durham, Greensburg, or to Mrs. George M. Barbee, Campbells-ville, or to me, Mrs. A. T. McCormack, at the State Department of Health, 620 South Third Street, Louisville.

An unusual thing happened at the demonstration plot near Hardin's Creek, near Lebanon! The flowers made a pretty showing last summer and attracted a lot of attention, so much attention that one man bought that land, and more adjoining, and spent, I am told, \$10,000.00 building an inn and gasoline station which the sign tells us is The Jane Todd Crawford Inn. Serves excellent chicken and old ham dinners in true Kentucky style and is also proving a popular and satisfactory place where the young folks of Lebanon enjoy parties and well-conducted dances.

Respectfully submitted,

(Mrs. Arthur Thomas) Jane Teare McCormack,
Chairman

(Continued In January, 1941 Issue)





Tuberculosis



Mrs. Lucius Ernest Smith, Louisville, State Chairman.

CHRISTMAS SEALS



Help to Protect Your Home from Tuberculosis

GIVE THEM THEIR RIGHT TO LIVE

The children in your community are depending upon you for the right to live. They look to their parents and their elders to protect them from all things that would harm them. We are not loyal if we are heedless of the needs of the helpless who depend upon us.

"Protect us from tuberculosis." The children on this year's Christmas seals make their plea—a plea appropriate to their age. It is as if they knew the ravages of tuberculosis in the past and realized the dangers ahead. Naturally, to protect the children from the dangers of this treacherous disease, we must protect the home, because the home is a haven for the child.

Tuberculosis charts a strange course through the years of life, veering in and out among boys and girls, men and women, never giving any period of life a clear berth, but choosing certain years—the young, active, productive years—for its most violent attack. Tuberculosis is seldom thought of as one of the so-called childhood diseases. Yet tuberculosis kills more children under ten years of age than does diphtheria or scarlet fever. During these young years, the disease attacks little boys and girls alike, showing little of the grim preference manifest in later life. When the teens are reached, tuberculosis rapidly advances to take more lives than any other disease. During these years, the scythe swings more deadly among girls than boys. During the twenties, tuberculosis continues to take

more lives than any other disease, and it still kills more young women than young men. During the thirties, the toll of lives among men begins to mount, and throughout the remaining years of life more men than women fall victims of this disease. We must still think of tuberculosis as the greatest enemy of youth—the greatest killer between the ages of fifteen and forty-five.

What can be done to meet the plea of the children on the Christmas seal for the years that lie ahead? Scientists, medical men, health departments and tuberculosis associations throughout the country are answering their plea as quickly and fully as possible.

We must remember that there is no vaccine for the prevention of tuberculosis; there is no drug for the cure of the disease. Knowledge is our best weapon in the fight. When those entrusted with the care of our children know what causes tuberculosis, how it is spread, how the spread can be prevented, how to detect the presence of germs before damage is done and how and where early tuberculosis can be treated and cured, they will be anxious to apply intelligently this knowledge for the preservation of their own children. At the same time, they will be anxious to share their knowledge with others. Education concerning tuberculosis must be universal.

Tuberculosis is an insidious, infectious disease and frequently reaches the advanced stage before the victim is aware of its presence. The long period of time that tuberculosis can hide behind apparently healthy looks enables it to become well entrenched in the body of its victim before detection and tends to diminish the chances of recovery. We must also keep in mind that advanced tuberculosis not only makes recovery

SHOES FOR HEALTH

ANTIOCH—For Women

Children's
Shoes

Men's
Shoes

N. H. LYONS

Foot Health Institute

Francis Building, 4th and Chestnut
Jackson 3918—Louisville, Ky.

Consult a Competent Foot Authority
Regularly

less likely for the victim, but also makes the victim a spreader of these death-dealing germs. Everyone should know these simple facts about tuberculosis.

We should endeavor to educate the people in our immediate circle and should see that the communities in which we live are well informed about this great enemy of children. We should always remember that no home is safe from tuberculosis until all homes are safe, and that no child is safe from the ravages of this disease until all children are safe.

The Kentucky Tuberculosis Association is the only state-wide organization in Kentucky dedicated entirely to the fight against tuberculosis and it has no financial support other than the money derived from the sale of Christmas seals in December. It endeavors to carry on its educational program throughout the entire year.

Remember, when the Christmas seals come to you in December, that a large part of the funds thus raised remain in your own communities to fight tuberculosis. Five per cent of the gross sales go directly to the National Tuberculosis Association. The remainder is used by your State and local organizations to finance their programs of education and tuberculosis prevention throughout the year* The Kentucky Tuberculosis Association gives every citizen a chance to do his part to make his State a safer place for children, to safeguard his community from the ravages of tuberculosis and to make life safer for the little ones he loves so well.

Christmas seals help to protect your home from tuberculosis, and children are safer in protected homes. Do your part and teach your children to contribute to this program and help them to grow into good citizens — strong, healthy and ready to bear their share of the burdens of life. Do your part for the children's sake.

*For detail information, write your State Chairman or communicate directly with the Kentucky State Tuberculosis Association, 620 S. Third Street, Louisville.

Tuberculosis and Undulant Fever have many like symptoms. If you have either one, better find out.

CALLOWAY MEDICAL AUXILIARY 1940 PROJECT

Mrs. E. L. Garrett, Murray

Tuberculosis has long been a menace to the populace of Calloway County, but the day for its suppression appears near at hand.

The Woman's Auxiliary to the Calloway County Medical Society has set for its goal the control of this dread disease, and has solicited the cooperation of the various civic organizations of the County.

The County Health Department has labored long and faithfully in the effort to eradicate tuberculosis but the task is too great for one organization; it necessitates the combining of efforts of all citizens for the common goal.

With the evident enthusiasm and support from the local clubs, such as the Lions Club, Woman's Club, Homemakers Club, etc., and the endorsement of the local Health Unit, there is no fear on the part of the Auxiliary as to success in reaching the desired goal.

The tentative plan is to organize a County Tuberculosis Association, the value of which is well recognized throughout the State. But there is preliminary work to be done; the people must become cognizant of such worthwhile endeavor. Therefore, each member of the Auxiliary is to be responsible for a certain community. It is her task to ascertain the number of homes in which there are, or has been, a case of tuberculosis. She is to arrange for a community meeting, at which time a local physician will talk on the value of early diagnosis, the prevention, care and treatment of the disease. At a later date, a clinic will be held when every member of the community will have the privilege of being tuberculin tested. Then the Auxiliary hopes to have each tuberculin reactor x-rayed.

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This will give a definite task toward control. Already, plans are being made whereby indigent, active cases may be cared for. Through the recommendation from the County Health Department, isolation cottages can be built with WPA (Works Progress Administration) labor and furnished by donations. Such cottages have been proving satisfactory in the county as may be cited by the following case.

A mother of two children lost her husband about eighteen months ago. She secured employment on a WPA project. During a physical check-up she was found to be working with a daily temperature of 102°. She was x-rayed and shown to be in an advanced stage of tuberculosis. She was isolated in a cottage built by WPA labor and furnished by friends. The mother is improving physically and shows a decided change in her mental attitude.

This is only one instance of the many opportunities that await the Auxiliary in this County.

This task is a great one: the challenge adds impetus and enthusiasm, truly, the "field is white unto harvest," but this time the laborers seem to be many and willing.

HARDIN COUNTY TO THE FRONT

The State Tuberculosis Chairman has just received a very important report from Mrs. E. E. Johnston, of the Hardin County Woman's Auxiliary.

These Auxiliary Members plan each year to render services to all indigent tuberculous patients in Hardin County. At the same time, they are able to make some definite contributions to the personal needs of patients in free beds at Hazelwood Sanatorium.

They are not content with selling Christmas seals alone and using their part of the funds to carry on this good work, but they have had three rummage sales, which netted about eighty dollars. This has been used to good advantage to supply medicines and food for indigent tuberculous patients. At present, they are supplying medical and material aid to a transient family living in a trailer. The father is ill with tuberculosis, and they are trying to help him, protect the three-year-old baby and find work for the mother.

The Hardin County Auxiliary Members set a good example when they isolated two of their advanced indigent tuberculous patients and made them comfortable until they were relieved by death. This was a wise step and prevented the spread of disease to others.

These alert, active women have obligated themselves to carry on an intensive educational program and convince their people that tuberculosis is youth's greatest enemy. They are

fighting to reduce the tuberculosis death rate in Kentucky as a step toward the final eradication of the disease.

Last, but not least, they are working hard for a full-time health unit for Hardin County. They are selling Christmas seals, educating the public and fighting tuberculosis. "Go thou, and do likewise."

THE DOCTORS SHOP

Mrs. J. B. Lukins, Louisville, State Chairman

I hope many of you who attended the State meeting at Lexington saw The Doctors Shop at Harrodsburg.

Did it not fill you with appreciation of the courage, bravery and self-sacrifice of our pioneer doctors who carried on with such inadequate equipment?

Among recent donations for the Shop I have received a very handsome wooden box, over a hundred years old, lined with red velvet, divided into compartments, containing large, long surgical knives and other interesting looking instruments. These were used by a New York Army surgeon, procured by the late Dr. J. W. Sams and given by Mrs. Sams.

A picture of Dr. S. T. Purcell of Glasgow, a physician and surgeon of the Civil War, was given by the Sampson Community Hospital Auxiliary.

Antique fire tongs were procured by Mrs. V. A. Stilley and given by Mrs. J. D. Peterson, of Benton. Before her death, Mrs. W. M. Green, daughter of the late Dr. Geo. B. Calvert of Perryville gave Mrs. Paul Keith something very old and interesting—two tickets of admission to Louisville Medical Institute Lectures, dated 1841 and 1842, bearing the name of Geo. B. Calvert.

Please search your attic and ask any friends who had a doctor in their family years ago, to go to their attics and search for appropriate mementoes, instruments, books, lamps or furniture for our Doctors Shop.

Please take articles to the Shop. Call at the Mansion Museum next door for an attendant to let you into the Doctors Shop. Or, send to Mrs. J. B. Lukins, 1280 Eastern Parkway, Louisville, Ky.

When a patient finds his symptoms mean tuberculosis the only wise thing is to seek treatment at the sanatorium.

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315 West Jefferson Street, Louisville
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IMPERIAL Washable WALLPAPERS

AUDITOR'S REPORT

for

WOMAN'S AUXILIARY TO THE KENTUCKY STATE MEDICAL ASSOCIATION

To the Woman's Auxiliary, Kentucky State Medical Association:
Mesdames:

We submit herewith report of our audit of the books and records of your Treasurer, Mrs. Luther Bach, and your Business Manager of "The Quarterly," Mrs. William H. Emrich, for the period beginning July 5, 1939, and ending August 1, 1940.

The various exhibits and statements submitted herewith set forth in detail the financial transactions for the period and show the condition of your affairs as reflected by your records.

We hereby certify that, in our opinion, the attached exhibits and statements correctly present the assets of the Woman's Auxiliary, Kentucky State Medical Association, at August 1, 1940, and its receipts and disbursements for the period from July 5, 1939, to August 1, 1940, as reflected by its records.

Respectfully submitted,
(Signed) EUGENE M. HEIMERDINGER,
Certified Public Accountant

EXHIBIT "A"

RECEIPTS

Gross Dues Received	\$ 170.00	
Less American Medical Association Auxiliary Dues	70.00	
		\$ 100.00
State Dues Received		
Transfer—Jane Todd Crawford Fund	10.52	
For account Jane Todd Crawford Fund	16.40	26.92
		20.65
Advertising in Journal Kentucky State Medical Association...		\$ 147.57
Total Receipts 1939-1940		

DISBURSEMENTS

Office Supplies, Postage and Badges.....	\$ 21.02	
Printing and Stationery.....	15.72	
President's Expense	100.00	
Auxiliary Sundries	8.86	
		\$ 145.60
		1.97
Balance on hand August 1, 1939, Campbell County Bank, Bellevue, Kentucky		104.11
Balance on hand August 1, 1940, Campbell County Bank, Bellevue, Kentucky		\$ 106.08

SAVINGS ACCOUNT

Louisville Trust Company, Louisville, Refunding Certificate No. 15956	\$ 26.61	
Louisville Trust Company, Louisville August 1, 1939, Savings Account Balance in name of Mrs. Luther Bach, Treasurer.....	\$ 64.62	
	Interest .....	.28
	Less Government Tax .....	.06
		.22
Total Savings Account Deposited in Louisville Trust Company: Louisville, August 1, 1940.....		64.84
Undeposited Receipts on Hand—Payment on the Louisville Trust Company Depositors Refunding Certificate No. 14,258		\$ 20.00
July 1, 1940, Jane Todd Crawford Memorial Fund, Held by Treasurer, Mrs. Luther Bach.....		
	Total Assets	\$ 217.59

EXHIBIT "B"

JANE TODD CRAWFORD MEMORIAL FUND

1939-1940

Balance Forward, August 1, 1939.....\$ 37.02

RECEIPTS

1939			
July 1	Miss Eleanor Denhardt, Bowling Green.....	\$ 1.00	
July 1	Mrs. J. G. Denhardt, Bowling Green.....	1.00	
July 1	Mrs. Elizabeth Denhardt, Bowling Green.....	1.00	
July 1	Mrs. R. L. Compton, Greenup	1.00	
Aug. 16	Franklin County Auxiliary, Frankfort.....	5.00	
Aug. 16	Mrs. Mattie M. York.....	2.00	\$ 11.00
	Total		\$ 48.02

DISBURSEMENTS

Oct. 9	Mrs. A. T. McCormack: For Jane Todd Crawford Cabins, to be used in Kentucky Schools	\$ 37.50	
Oct. 8	Transferred to Checking Account	10.52	\$ 48.02

EXHIBIT "C"

PAID MEMBERSHIP TO AUGUST 1, 1940

	1936	1937	1938	1939	1940
Ballard-Carlisle	—	5	—	—	—
Breathitt	—	—	17	13	15
Calloway	3	1	2	—	5
Campbell-Kenton	5	5	25	12	13
Franklin	—	4	20	21	25
Graves	15	17	—	35	16
Hardin	12	—	11	17	28
Jefferson	121	114	110	106	*
Lawrence	—	—	—	—	—
Madison	—	—	36	32	23
Marshall	—	—	6	8	5
McCracken	—	36	3	—	—
Mercer	17	16	—	12	16
Nelson	9	9	—	8	—
Perry	18	—	—	—	—
Warren	—	—	—	—	20
Licking Valley	—	—	—	23	16
Sampson Community Hospital	24	17	15	8	22
State at Large	15	22	8	26	15
Totals	239	245	253	321	219
310 Memberships (from County Auxiliary).....	at \$.50			\$ 155.00	
15 State at large Membership.....				15.00	
Total Dues Collected				\$170.00	
*Payment of 1939 dues received during year 1940—See Exhibit D					

EXHIBIT "D"

Detailed Statement of Receipts and Disbursements of Mrs. Luther Bach, Treasurer, Woman's Auxiliary, Kentucky State Medical Association, from June 27, 1939, to July 23, 1940.

	Receipts	Disbursements
1939		
June 27—Balance Forward	\$104.11	
July 28—Dues, Warren County Auxiliary, Mrs. L O. Toomey, 1341 State Street, Bowling Green, Ky.	10.00	
Sept. 5—Dues, Jefferson County Auxiliary, Mrs. M. C. Baker, 308 S. Galt St., Louisville, Ky. ....	.50	
Sept. 11—Dues, State at Large, Mrs J. B. Acree, Paducah, Kentucky	1.00	
Sept. 11—Dues, State at Large, Mrs. W. B. Atkinson, Campbellsville, Kentucky	1.00	
Sept. 11—Dues, State at Large, Mrs. Viola C. Flowers, Middlesboro, Kentucky	1.00	
Sept. 11—Dues, State at Large, Mrs. Evan Garrett, Murray, Kentucky	1.00	
Sept. 11—Dues, State at Large, Mrs. J. E. Fox, Lexington,.....	1.00	
Sept. 11—Dues, State at Large, Mrs. C. F. Long, Elizabethtown, Kentucky	1.00	
Sept. 11—Dues, State at Large, Mrs. E. C. McGeehee, Ashland, Kentucky	1.00	
Sept. 11—Dues, State at Large, Mrs. T. J. Marshall, Paducah, Kentucky	1.00	
Sept. 11—Dues, State at Large, Mrs. C. R. Morton, Madisonville, Kentucky	1.00	
Sept. 12—Dues, State at Large, Mrs. J. A. Outland, Murray, Kentucky	1.00	
Sept. 12—Dues, State at Large, Mrs. J. C. Tucker, Leitchfield, Kentucky	1.00	
Sept. 12—Dues, State at Large, Mrs. R. E. Zwickel, Worley, Kentucky	1.00	
Oct. 9—Check No. 25 on the Wachtel Company for Badges for 1939 meeting		9.50
Oct. 9—Balance of Jane Crawford Fund, Deposited in General Fund	10.52	
Oct. 31—Check No. 26 to Mrs. A. T. McCormack for postage in mailing out Jane Todd Crawford Cabins (Closes Jane Todd Crawford Account)		10.52
Oct. 31—Check No. 27 to The Times-Journal Publishing Company for stationery		15.72
Nov. 6—Dues, Mercer County Auxiliary, Mrs. C. F. Fark, Harrodsburg, Kentucky	8.00	
Nov. 28—Dues, Jefferson County Auxiliary, Mrs. Arch Herzer, Louisville, Kentucky	51.50	
Dec. 2—Dues, State at Large, Mrs. Chas. Vance, Lexington, Kentucky	1.00	
1940		
Feb. 12—Dues, Madison County Auxiliary, Mrs. J. W. Armstrong, Berea, Kentucky	9.00	
Feb. 20—Check No 28 to Mrs. R. T. Layman, for President's expenses		50.00
Feb. 19—Dues, Sampson Community Auxiliary, Mrs. J. W. York, Glasgow, Kentucky	11.00	
Feb. 20—Dues, Jefferson County Auxiliary, Mrs. Arch Herzer, Louisville, Kentucky	1.00	
March 12—Dues, Franklin County Auxiliary, Mrs. R. M. Coblin, Frankfort, Kentucky	12.50	
1940		
March 27—Dues, Licking Valley Auxiliary	1.00	
March 28—Dues, Calloway County, Auxiliary Mrs. L. D. Hale, Murray, Kentucky	2.50	
March 26—Dues, Campbell-Kenton County Auxiliary, Mrs. H. C. White, Covington, Kentucky	6.50	
March 28—Dues, Licking Valley Auxiliary, Mrs. Wilbur Houston, Erlanger, Kentucky	5.50	
March 29—Dues, Breathitt County Auxiliary, Mrs. Frank Sewell, Jackson, Kentucky	7.50	
March 27—Check No. 29 to Mrs. Luther Bach, for postage.....		1.00
March 31—Check No. 30 to Mrs. E. E. Fisher for National dues		70.00
April 2—Check No. 31 to Minish & Potts, Crestwood for floral design for Mrs. El. H. Heller.....		3.50
May 6—Check No. 32 to Minish & Potts, Crestwood, for spray and telegram, Dr. Layman		5.36
March 25—Dues, Marshall County Auxiliary, Mrs. Fern Green, Calvert City, Kentucky	2.00	
May 1—Dues, Mrs. Emma Eddleman, Marshall County Auxiliary, Mrs. Fern Green, Calvert City, Kentucky .....	.50	
April 16—Dues, Graves County Auxiliary, Mrs. Jacob M. Mayer, Mayfield, Kentucky	8.00	
May 18—Dues, Hardin County Auxiliary, Mrs. H. R. Nusz, Elizabethtown, Kentucky	14.00	
May 20—Dues, Madison County Auxiliary, Mrs. John Armstrong, Berea, Kentucky	2.50	
June 26—Dues, Licking Valley Auxiliary	1.50	
June 28—Dues, State at Large, (1939-1940) Mrs. Wm. Martin Louellen, Kentucky	2.00	
June 29—Jane Todd Crawford Fund deposited in General Fund— From Mrs. A. T. McCormack.....	\$11.40	
From Franklin County Auxiliary.....	5.00	
	16.40	
July 20—Check from Kentucky State Medical Association 25 per cent commission on advertising amounting to \$82.60	20.65	
July 23—Check No. 33 to Mrs. R. T. Layman for President's discretionary use		50.00
Total Receipts	\$ 321.68	
Total Disbursements		215.60
Balance on hand, Campbell County Bank, Bellevue, Kentucky.....		106.08
	\$ 321.68	\$ 321.68

EXHIBIT "E"

Collections and Disbursements by Mrs. William H. Emrich, Business Manager, from July 1, 1939, to August 1, 1940, on account of The Quarterly, Supplement to the Kentucky Medical Journal, corresponding with checks, deposits and receipts filed.

RECEIPTS

Receipts from Advertisers—July 1, 1939, to August 1, 1940:	
Old Accounts Paid:	
1939 Accounts	\$ 151.25
Total Collections Old Accounts	\$ 151.25
1940 Accounts	1,022.04
Total received from Advertisers	\$ 1,173.29
Kentucky State Medical Association, 1939, Commission on Ads for Journal	13.98
Contributions	32.60
Total Receipts 1939-1940	\$ 1,219.87


DISBURSEMENTS

Expense of Quarterly (July, October, 1939; January, April, July, 1940)	\$1,292.97	
Commission paid Mrs. Jos. E. Wier, on advertisements—20 per cent on \$1,123.75 (Collections)	224.76	
Style Show	8.00	
Bank Service and Tax	.82	
Total Disbursements 1939-1940		\$ 1,526.55
Cost over Collections on 1939-1940	\$ -69.52	
July 1940 Quarterly Paid	-237.16	-306.68
Balance in Liberty Bank and Trust Co., Louisville, beginning of period	\$ 413.87	
Cash on hand beginning of period	46.25	460.12
Total Balance agreeing with Bank Balance as of August 1, 1940, Liberty Bank and Trust Company, Louisville		\$ 153.44
Accounts Receivable:		
1939 Accounts	\$ 42.50	\$ 182.85
1940 Accounts	140.35	336.29
Total Assets		
Liabilities:		
Accounts Payable		\$ 336.29
Net Worth		

EXHIBIT "F"

Contributions to
THE QUARTERLY

1939		
July 5—Franklin County Medical Auxiliary	\$5.00	
(Included in Assets 1938-39 Report—Check received too late to include in balance)		
Sept. 6—Hardin County Medical Auxiliary		10.00
Sept. 12—Mrs. John G. South, Frankfort, Kentucky		1.00
Sept. 12—Mrs. H. V. Usher, Sedalia, Kentucky		1.00
Sept. 12—Mrs. John H. Harlin, Glasgow, Kentucky		1.00
1940		
Feb. 6—Mrs. W. T. Vaughan		4.00
March 4—Renee for Style Show music		4.60
March 4—Mrs. McCoy's Cake Sale		5.00
June 20—Franklin County Medical Auxiliary		5.00
Aug. 1—Sampson Community Hospital Auxiliary		
Total Contributions July 1, 1939, to August 1, 1940		\$32.60



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They contribute to better health
and living.

Tortor Taint Co.

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First and Market Sts. Louisville, Ky.

EXHIBIT "G"
THE QUARTERLY

ACCOUNTS RECEIVABLE

Firm, 1939	Amount	
Kentucky Tent & Awning Compnay.....	\$ 20.00	
Mayes Printing Compnay.....	11.25	
Model Drug Company	11.25	\$42.50
1940		
Buttermann Ice Cream Company.....	17.85	
Cake Box	15.00	
Kentucky Hospital Association	10.00	
Meffert Equipment Company	11.25	
Mayes Printing Company	11.25	
Model Drug Company	11.25	
Renee Dress Shop	20.00	
Times-Journal Publishing Company	8.75	
Wheatley Mayonnaise	35.00	\$140.35
Total		\$182.85

EXHIBIT "H"

Details of Advertisements from September, 1939, to September, 1940. Advertising Manager, Mrs. Jos. E. Wier.

Firm	Contract	Paid
1 Antioch Shoes	\$ 20.00	20.00
2 Arctic Ice Co.	20.00	19.60
3 Barret, Frances	11.25	11.25
4 Baynham Shoes	20.00	20.00
5 Bush-Krebs	11.25	11.25
6 Buttermann Ice Cream	35.00	17.15
7 Cake Box	20.00	15.00
8 Clara Hats	11.25	11.02
9 Clifty Falls	11.25	11.02
10 Cowherd, J. W. & Sons.....	11.25	11.03
11 Cralle, Lee E.	35.00	34.30
12 Crown Laundry	11.25	11.05
13 Crutcher Dental Depot	11.25	11.25
14 Cherokee Dairy	11.25	11.25
15 Denhard, Brooks	20.00	—
16 Dolfinger China	11.25	—
17 Emmart Packing Co.	20.00	20.00
18 Ewing Von Allmen	100.00	98.00
19 Geher & Sons	11.25	11.03
20 Gilliland Laboratories	100.00	100.00
21 Grocer Baking Co.	60.00	60.00
22 Hampton Crackers	35.00	34.30
23 Hirsch Bros.	11.25	11.02
24 Hulskamp Drugs	11.25	11.25
25 Jaglowicz, Jos.	11.25	11.02
26 Jefferson County Milk Commission ..	20.00	20.00
27 Kentucky Dairies	11.25	11.25
28 Kentucky Hospital Association	20.00	10.00
29 Ky. and Ind. Terminal R. R. Co....	60.00	60.00
30 Klein Bros.	11.25	11.25
31 Kleinman Furriers	11.25	11.25
32 Louisville Apothecary	11.25	11.03
33 Louisville Crematory	20.00	20.00
34 Louisville Varnish	20.00	20.00
35 Mayes Printing Co.	11.25	—
36 Meffert Equipment Co.	11.25	—
36 Medical Arts	11.25	11.25
37 Millinery Studio	11.25	11.03
38 Minish & Potts	6.50	6.50
39 Model Drug Co.	11.25	—
40 Muldoon Monument Co.	11.25	11.25
41 Muth Optical Co.	11.25	11.25
42 Newman Drugs	20.00	20.00
43 Porter Paint Co.	20.00	20.00
44 Premier Paper Co.	20.00	20.00
45 Renee Dress Shop	20.00	—
46 Schardein, F. S. & Sons	11.25	11.25
47 Shackleton Pianos	25.00	25.00
48 Sherwin Williams	11.25	11.25
49 Southern Optical	20.00	19.60
50 Stoll Oil Co.	20.00	20.00
51 Swiss Cleaners	6.50	6.50
52 Tachau, E. S. & Sons	11.25	11.03
53 Tafel Surgical Supplies	20.00	20.00
54 Times-Journal	35.00	26.25
55 Wheatly Mayonnaise	35.00	—

EXHIBIT "I"

Statement of Cash Receipts and Disbursements.

RECEIPTS

August, 1939	\$ 22.72
September	110.55
October	70.61
November	18.75
December	41.64
January, 1940	134.25
February	391.07
March	220.64
April	60.03
May	90.85
June	25.00
July	20.00
Total	\$ 1,206.12
Deposited after books sent to Auditor..	13.75
	\$ 1,219.87

DISBURSEMENTS

July 1939—Issue of Quarterly, Check No. 38....	\$ 227.36
Bank Tax .....	.48
Oct. 1939—To Mrs. Jos. E. Wier (commission on ads paid to date) Check No. 39.....	36.32
Oct 1939—Issue of Quarterly, Check No. 40.....	289.10
Jan. 1940—Issue of Quarterly, Check No. 41.....	251.37
Feb 1940—To Mrs. Jos. E. Wier (commission on ads paid since Oct. 1940) Check No. 42....	79.56
Mar. 1940—To Mrs. Jos. E. Wier (commission on ads paid since Feb., 1940 plus postage \$3.00) Check No. 43	45.50
Mar. 1940—To Mrs. Leroy Hobbs, musician for Style Show—Check No. 44.....	4.00
Mar. 1940—To Mrs. Aline Brown—musician for Style Show—Check No 45.....	4.00
Apr. 1940—Issue of Quarterly, Check No. 46.....	246.96
Apr. 1940—To Mrs. Jos. E. Wier (commission on ads paid since Mar., 1940) Check No. 47...	40.66
June 1940—To Mrs. Jos. E. Wier (commission on ads paid since Apr., 1940) Check No. 48...	25.72
July 1940—Issue of Quarterly, Check No. 49.....	237.16
July 1940—Bush-Krebs, Engraving, Check No. 50..	10.53
July 1940—Postage and Express, Check No. 51...	27.49
Bank Tax .....	.39
Total	\$1,526.55.

FOR FINE CANDIES, ICE CREAM, and
PREFERRED DAIRY PRODUCTS

Highland 4670

CALL — Belmont 1805

Cherokee Sanitary Milk Co., Inc.

1765 Bardstown Road
1805 Frankfort Avenue

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Incorporated

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not only indorse our plan, but actually are members. Many of the Nation's leading hospitals cooperate with us. Our plan provides for the individual, family, and group employees. Good anywhere. Absolute choice of Hospital and Doctor. Kentucky's original self governed, cooperative—non-profit plan. Write us.

KENTUCKY HOSPITAL SERVICE ASSN., Inc., MEMBERSHIP DIVISION

Republic Building

Louisville, Ky.

News From The Counties

BREATHITT

The Breathitt County Auxiliary assisted with the Crippled Children's Clinic, held in Jackson on July 30. This Clinic is an annual event and the Medical Auxiliary always had a part in it.

Born to Dr. and Mrs. Frank K. Sewell, a baby girl on June 28 at the Good Samaritan Hospital, Lexington, Kentucky. The young lady has been named Martha Ann Sewell. Weight 6 pounds. (P. S. Potential Auxiliary member!)

A picnic has been planned for the members and their guests for the latter part of August.

CALLOWAY COUNTY

Dr. and Mrs. Hal Houston expect to move into their beautiful new home in September.

Dr. and Mrs. R. M. Mason are planning for a new home, since the total loss of their home, by fire, last New Years.

Dr. and Mrs. Fount Russell will be moving to Murray, by the time this goes to print. Dr. Russell will have charge of the College Medical work this coming year and we are glad to welcome Mrs. Russell as a new Auxiliary Member.

Dr. L. D. Hale's new office in Murray, is nearing completion. This new modern structure will have every convenience for the employing new methods in doctors' offices. Mrs. Hale rejoices with Dr. Hale in the early finishing of this building.

Dr. Ora K. Mason has had the pleasure of a visit from her mother and father, the Doctors Kress, from Orlando, Florida.

The Doctors Fisher are in Harvard University, for a month, of post graduate work, Dr. Katherine taking advanced work in Anesthesia and Dr. Ed studying further in Electrocardiography. We missed Dr. Katherine at our last Auxiliary meeting.

Mrs. A. D. Butterworth has returned from an extensive stay at the Mayo and Vanderbilt

clara

hats

\$3 - \$27

- hats made to order
- alterations

425 W. Chestnut

Louisville

DANCE FOR HEALTH AND PLEASURE IN A CULTURAL ATMOSPHERE

All Types of Dancing Taught

FRANCIS BARRETT STUDIO

1508 Bardstown Road

HI-6651

Hospitals but is feeling very much like her old self again.

The Auxiliary is planning a complete Tuberculosis survey of Calloway County. A further report will be made later.

GRAVES

The Woman's Auxiliary to the Graves County Medical Society met on April 14th in observance of Doctors Day. Eight members were present. Following a short business meeting, Mrs. H. H. Hunt read a biographical sketch of Dr. George Hart, in whose special honor the meeting was called.

The Woman's Auxiliary to the Graves County Medical Society met Tuesday, August 20th, at the Hall Hotel and elected officers for the coming year. Seven members were present.

Dr. James Fuller has joined Mrs. Fuller and daughter, Evelyn, on a visit to her parents, Mr. and Mrs. Will Usher, in Los Angeles, Calif.

Mrs. Ray Pryor and two sons visited her brother, Col. Manton Davis, New York City, and attended the World's Fair this summer.

Dr. and Mrs. Vernon Usher accompanied by their son, Harry and wife and little grandson, spent a week of vacation in Mexico, where they visited his brother, Mr. Harry Usher.

Dr. and Mrs. E. C. Walter and Dr. and Mrs. Jacob Mayer attended the Annual Convention of the American Medical Association in New York, the week of June 10th.

Now On Sale

Pasteurized Certified Milk

Medical Milk Commission

JEFFERSON COUNTY MEDICAL SOCIETY

HARDIN COUNTY

Dr. and Mrs. L. P. Herd and family visited Mrs. Frank Shepherd in Cleveland, Ohio.

Dr. and Mrs. Wm. Bernard spent several days with relatives in Michigan.

Mr. and Mrs. Robert Bradley spent several days as guests of his brother, Dr. George Bradley and Mrs. Bradley.

Dr. L. H. Layman of Holden, W. Va., spent two weeks as guests of his mother, Mrs. R. T. Layman.

Dr. and Mrs. C. F. Long and family made a sightseeing tour of Washington, D. C. and other points in that vicinity.

Dr. and Mrs. George Bradley spent several days in Chicago, Ill. with relatives.

G. W. Woodard, Jr., son of Mrs. Woodard, will enter military school in early September at Columbia, Tenn., to do post-graduate work.

Dr. W. A. Pusey of Chicago, Ill. and Elizabethtown who died in Chicago, was buried September 2nd in Elizabethtown.

The Hardin County Medical Auxiliary had a rummage sale Saturday, August 17 in the court house. The proceeds, \$20.50, will benefit a man having tuberculosis. He and his wife, with small child, are living in a trailer parked in a deserted street in Elizabethtown. Food, clothing, fuel, shelter and medical care are all being furnished by our Auxiliary. Milk and ice are being donated by various concerns. Odd pieces of furniture were donated. A mattress was given by an organization in the Baptist Church.

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Incorporated
325 W. Walnut St., Starks Bldg.
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Medical Arts Prescription Shop
Incorporated
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Louisville

MILLINERY STUDIO

Complete Line of New Millinery \$2.95 & Up
Hats Made To Order and Remodeled
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JACKSON 5901 Louisville, Kentucky

JEFFERSON COUNTY

The first meeting of the fall was held at the Brown Hotel on Monday, September 9 with the President, Mrs. Richard T. Hudson, presiding in her usual gracious manner. The principal speaker was Dr. Murray Kinsman who spoke about minor heart discomforts which usually alarm people. Mrs. Edgar Busath gave several vocal numbers accompanied on the piano by Mrs. Frank J. Daugherty. Mrs. Bernard Asman, the Program Chairman, arranged the program.

Election of new officers featured the business meeting. The following officers were elected:

President-Elect—Mrs. Octavus Dulaney
Vice-President—Mrs. Thomas J. Crice
Secretary—Mrs. J. B. Lukins
Treasurer—Mrs. Oliver H. Kelsall
Parliamentarian—Mrs. William E. Fallis
Member of Judicial Council—Mrs. James S. Lutz

These officers, with Mrs. Bernard Asman who is now President-Elect, will be installed at the December Meeting.

Dr. and Mrs. Oscar O. Miller have just returned from a visit to New Orleans and Ohio.

Mrs. Hugh Nelson Leavell visited her son, the Reverend Mr. Charles G. Leavell and Mrs. Leavell of Norton, Virginia, to attend the baptism of their son, Julian Corbett Leavell, born May 25th. The Reverend Mr. Leavell is Rector of All Saints' Church.

Mrs. Hugh N. Leavell is now living at the Mayflower Apartments.

Miss Helen Ruth Horine, daughter of Dr. Emmet Field Horine and Mrs. Horine, was married on August 30th to Mr. Carleton Burke Chapman. The Harbison Memorial Chapel was the scene of the ceremony which was performed by the Rev. Dr. Lewis Joseph Sherrill.

Miss Elizabeth Ann Horine was her sister's maid of honor and Mr. John D. Allen was the best man.

A reception was given by the bride's parents at their home on Rosewood Avenue. Mr. and Mrs. Chapman will make their home in Boston, Mass.

KENTUCKY DAIRIES, Inc.

981 S. Third

A. B. Sawyer, Jr., President and General Manager.

Louisville

For the first time in its history Jefferson County has continued sewing during the summer months but the war emergency made us feel that we must do our bit for the Red Cross. With Mrs. George C. Leachman as chairman and with Mrs. F. Parks Ogden, Mrs. Joseph C. Dahlem and Mrs. George F. Dusch as hostesses we have made over 300 pieces of layettes. We even sewed at the annual picnic, a time when we usually explore the woods or play cards or just sit and talk. Mrs. S. C. McCoy was again kind enough to invite us to her beautiful country home for our picnic and we had a grand time as well as trying to help some of the innocent victims of this cruel war.

When Emily Clayton, daughter of Mr. and Mrs. John C. Rogers, Jr., arrived on July 12, she made the third generation of her family to have the same birthday. Her grandmother, our Mrs. John C. Rogers, was also born on a July 12 as was Mrs. Rogers' father, Mr. Isaac Thomas Woodson. Good Luck, Emily Clayton!

Dr. and Mrs. Rogers have had a short visit recently from their other grandchildren, Thomas Woodson, Jr., and Jane Douglas whose mother brought them from St. Louis where they have been staying while Lieut. Rogers is at sea on the U. S. S. Hopkins.

Summer time has been vacation time for several of our women. Mrs. George C. Leach-

man, together with Dr. Leachman and daughter, Martha, drove to Miami Beach early in the summer.

Dr. and Mrs. Walter L. Hume, and daughter also spent their vacation in Florida.

Mrs. Charles H. Moore has been in Virginia and Mrs. James S. Lutz drove to New York with three friends.

Mrs. A. T. McCormack spent the summer with her mother in Berlin, N. H., after attending the meeting of the Woman's Auxiliary to the American Medical Association in New York in June. Her brother, Mr. Philip Irving Teare, and his wife came home with her and spent several days motoring in Kentucky.

Mrs. Jos. E. Wier attended the annual meeting of the Women's Auxiliary to the American Medical Association, in New York. Later, went to Evansville and spent the summer with her son, Dr. James Wier, who is establishing practice in that city.

MADISON

Dorothy Louise, born June 18 at Berea, is the newest addition to the family of Dr. and Mrs. Wilson Dodd, Berea.



OHIO RIVER BRIDGE

Located on the site of the Original Buffalo Trace crossing the Ohio River, Louisville, Ky. and New Albany, Ind.

Where three trunk railroads and two trunk highways, U. S. 31-W and U. S. 150 connecting with Indiana highways 33, 62 and 64, cross a trunk waterway.

A local institution employing local labor and patronizing local merchants and financial institutions.

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Louisville, Ky.

DIRECTORY OF KENTUCKY STATE MEDICAL AUXILIARY

WOMAN'S AUXILIARY TO THE KENTUCKY STATE MEDICAL ASSOCIATION

1940-1941

Next Meeting, Louisville, 1941

Advisory Council

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V. A. Stilley, M. D., Benton
A. T. McCormack, M. D., Louisville

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Mrs. R. T. Layman, Elizabethtown

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Exhibit—Mrs. Joseph Barr, Box 183, Frankfort
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Hygeia—Mrs. James W. Sams, 310 Wendover, Louisville
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Program—Mrs. R. T. Layman, Elizabethtown
Public Relations—Mrs. Samuel H. Flowers, 2403 Cumberland Ave., Middlesboro
Radio—Mrs. Joseph E. Wier, 1614 Chichester, Louisville
Tuberculosis—Mrs. Lucius E. Smith, 459 Fairlawn Drive, Louisville

The Quarterly

Editor—Mrs. A. T. McCormack, Brown Hotel, Louisville
Business Manager—Mrs. William H. Emrich, 842 S. 2nd Street, Louisville
Advertising Manager—Mrs. Joseph E. Wier, 1614 Chichester, Louisville

COUNTY AND DISTRICT DIRECTORY

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1940-1941

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BREATHITT COUNTY

(All of Jackson)

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Cox, Miss Brackye
Francis, Mrs. Robert C.
Hoge, Miss Irene
Hoge, Mrs. Mervin Eugene
Hogg, Miss Helen
Hogg, Mrs. Jessie
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Parker, Mrs. Howard R.
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Redwine, Miss Mattie Lee
Sewell, Mrs. Frank Kash
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Haley, Miss Pauline, U. S. Marine Hospital, Norfolk, Va.
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Menefee, Mrs. Charles A., Earl and Park Ave., Covington
Todd, Mrs. John, Sixth and Park, Newport
VanDermark, Mrs. J. Guy, 829 Aberdeen Place, Park Hills
White, Mrs. Henry Clay, 3823 DeCoursey Ave., Covington

CALLOWAY COUNTY

Reorganized October 10, 1939, meeting regularly four times each year.

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Vice-President—Mrs. Cody Harrison Jones
Secretary-Treasurer—Mrs. A. D. Butterworth

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Historian—Mrs. A. D. Butterworth
Jane Todd Crawford—Mrs. E. H. Houston
Public Relations—Mrs. James Alfred Outland
Publicity—Mrs. R. M. Mason
Tuberculosis—Mrs. Hugh Leavell Houston

Associate Members

Dr. Ora Kress Mason Dr. Katherine Collins Fisher

Active Members

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Garrett, Mrs. Evan L., 902 Poplar, Murray
Hale, Mrs. Lonnie D., 1313 West Main, Murray
Houston, Mrs. Hugh Leavell, Hazel Road, Murray
Houston, Mrs. Hal Edward, West Main, Murray
Jones, Mrs. Cody Harrison, Lynn Grove, Ky.
Mason, Mrs. R. M., Nat'l Hotel, Murray
McDevitt, Mrs. Coleman J., Sycamore St., Murray
Outland, Mrs. James Alfred, Murray
Russell, Mrs. Alexander, D., Miller Ave., Murray

FRANKLIN COUNTY

Advisory Council

(All of Frankfort)

Dr. Reuben Mussey Coblin, 115 Shelby Street
Dr. Thomas Fenery Leonard, 412 Wapping Street
Dr. Lawrence Minish, 121 West Fourth Street

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Hygeia—Mrs. Leighton Louraine Cull, South Shelby St.,
Jane Todd Crawford Trail Memorial and Library—Mrs. Matthew Cotton Darnell, 218 Conway Street
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Cull, Mrs. Leighton Louraine, South Shelby Street
Darnell, Mrs. Matthew Cotton, 218 Conway Street
Darnell, Mrs. James, 216 Conway Street
Demaree, Mrs. Owen Breckinridge, 200 Washington Street,
Flynn, Mrs. Reba Burrow, 617 Shelby Street
Fish, Mrs. Carlos Albert, 305 East Main Street
Fort, Mrs. Robert Marion, 220 St. Clair Street
Luttrell, Mrs. Bishop, R. F. D., Versailles Pike
Leonard, Mrs. Thomas Penery, 412 Wapping Street
Lewis, Mrs. Jesse, Coleman Springs Addition
Marshall, Mrs. Jack, Lafayette Drive
Minish, Mrs. Lawrence, 121 West Fourth Street
Martin, Mrs. Edward Kilgore, South Shelby Street
Offutt, Mrs. Eleanor Hume, 218 West Campbell Street
South, Mrs. John Glover, 505 Wapping Street
Stewart, Mrs. Bowling, R. F. D., Lawrenceburg Pike
Stewart, Mrs. John Fugh, R. F. D., Lawrenceburg Pike,
Travis, Mrs. Finis, 732 Shelby Street
Travis, Miss Helen, 732 Shelby Street
Ward, Mrs. William Walker, R. F. D., Louisville Road,
Youmans, Mrs. Charles Emmitt, 205 Steele Street

GRAVES COUNTY

(All of Mayfield, unless otherwise stated)

Advisory Council

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Secretary-Treasurer—Mrs. Jacob Mayer, Lowe Apartments
Corresponding Secretary—Mrs. William Thomas Vaughan, 616 South Seventh Street

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Historian—Mrs. George Terrell Fuller, 218 North Seventh
Hygeia—Mrs. Will Joseph Shelton, 313 South Seventh St.
Jane Todd Crawford—Mrs. Robert Grady Ashley, 320 East College Street
Public Relations—Mrs. Harlan Vernon Usher, Sedalia
Tuberculosis—Mrs. Herbert Hobson Hunt, 630 South Second Street

Honorary Members

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Skinner, Mrs. Laura Stokes
Stewart, Mrs. Henry Flynn, Shreveport, La.

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MODEL DRUG STORE
BARDSTOWN ROAD AND EASTERN PARKWAY
THE LARGEST DRUG STORE IN THE HIGHLANDS. LOUISVILLE, KY.

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 Atkins, Mrs. Neal Morris, 414 North Seventh Street
 Fuller, Mrs. George Terrell, 218 North Seventh Street
 Hargrove, Mrs. Wilbur S., Hickory
 Hurt, Mrs. Moza West, 228 North Eighth Street
 Hunt, Mrs. Herbert Hobson, 630 South Second Street
 Maddox, Mrs. Roy, Maddox Apartments
 Mayer, Mrs. Jacob Merritt, Lowe Apartments
 Merritt, Mrs. William Ernest, Fancy Farm.
 Pryor, Mrs. John Ray, Chapel Court
 Ray, Mrs. Dalton H., 803 South Second Street
 Shelton, Mrs. John Henry, 217 West North St.
 Shelton, Mrs. Will Joseph, 312 South Seventh Street
 Usher, Mrs. Harlan Vernon, Sedalia, Kentucky
 Vaughan, Mrs. William Thomas, 616 South Seventh Street

HARDIN COUNTY

(All of Elizabethtown, unless otherwise stated)

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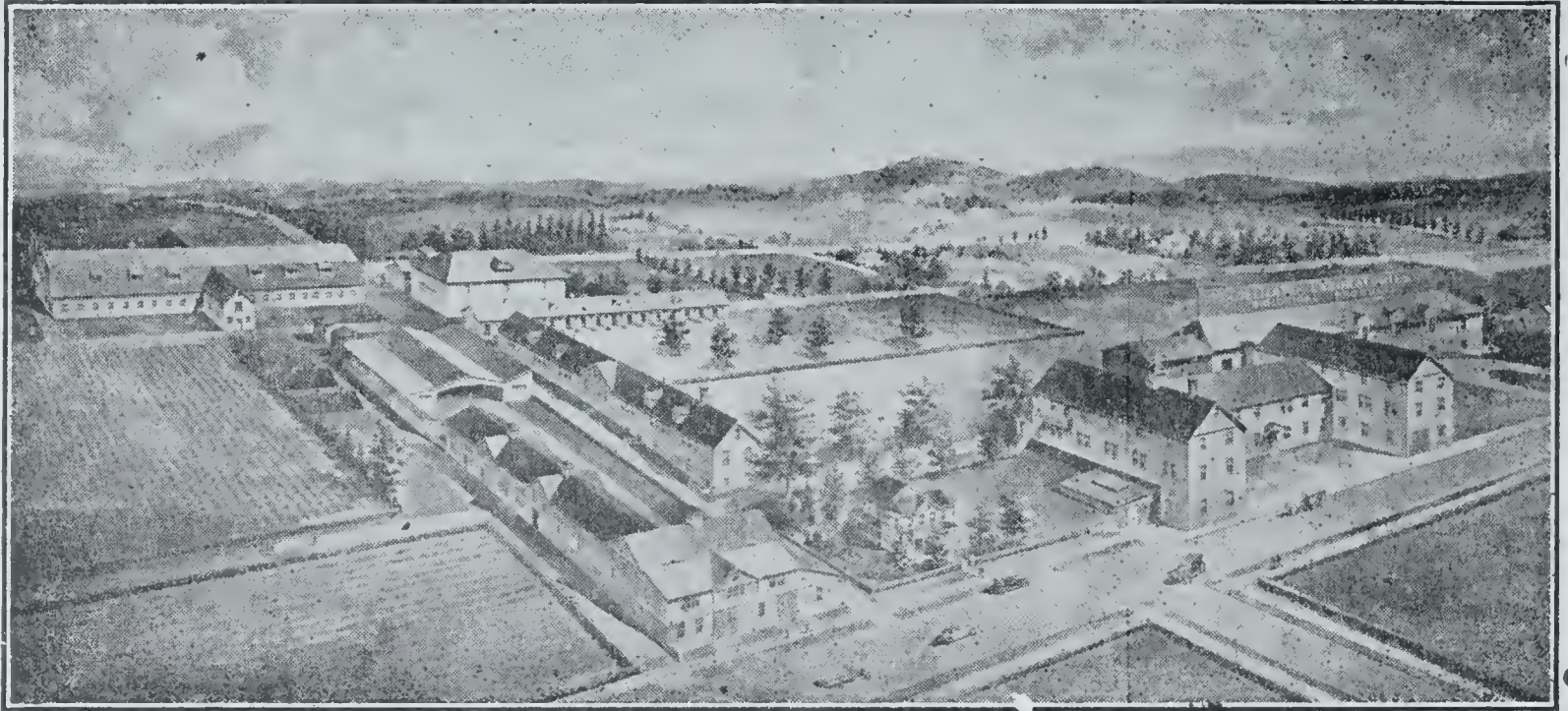
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